

Schreiber, David

113417

From: Ramirez, Delia
Sent: Tuesday, January 27, 2004 1:25 PM
To: Schreiber, David
Subject: case 09/993059

Hi,

I would like to request the following interference search: seq id 18 in the protein databases.

Thank you,

Delia M. Ramirez, Ph.D.
Patent Examiner
Recombinant Enzymes-Art Unit 1652
USPTO
1911 S. Clark Street, Crystal Mall 1, 10D06, Mail room 10D01
Arlington, VA 22202
(703) 306-0288
delia.ramirez@uspto.gov

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OM protein - protein search, using sw model

Run on: January 29, 2004, 12:39:14 ; Search time 21 Seconds

(without alignments)
852.262 Million cell updates/sec

Title: US-09-993-059-18

Perfect score: 2322
Sequence: 1 MOLRNPGLHGCALALRFLA.....RSHINPTGVLLQLSEKDEL 423

Scoring table:

BLOSUM62

Gapop 10.0 , Gapext 0.5

Searched: 328717 seqs, 42310858 residues

Total number of hits satisfying chosen parameters: 328717

Minimum DB seq length: 0

Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%

Maximum Match 100%

Listing first 45 summaries

Database :

- Issued Patents AA.*
- 1: /cgn2_6/ptodata/1/1aa/5A_COMB.pep.*
 - 2: /cgn2_6/ptodata/1/1aa/5B_COMB.pep.*
 - 3: /cgn2_6/ptodata/1/1aa/5A_COMB.pep.*
 - 4: /cgn2_6/ptodata/1/1aa/5B_COMB.pep.*
 - 5: /cgn2_6/ptodata/1/1aa/5A_COMB.pep.*
 - 6: /cgn2_6/ptodata/1/1aa/5B_COMB.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	DB ID	Description
1	2293	98.8	429	1	US-07-602-824A-2
2	2293	98.8	429	1	US-07-602-608-3
3	2293	98.8	429	1	US-07-983-451-2
4	2293	98.8	429	1	US-08-261-578-3
5	2293	98.8	429	1	US-08-261-577-7
6	2289	98.6	429	3	US-08-261-577-9
7	2289	98.6	429	3	US-09-070-355-4
8	2275	98.0	428	6	5179023-4
9	2131	91.8	386	3	US-09-176-666-11
10	2131	91.8	387	3	US-09-176-666-10
11	2131	91.8	387	3	US-09-176-666-9
12	2131	91.8	389	3	US-09-176-666-8
13	2131	91.8	390	3	US-09-176-666-7
14	2131	91.8	391	3	US-09-176-666-6
15	2131	91.8	392	3	US-09-176-666-5
16	2131	91.8	393	3	US-09-176-666-4
17	2131	91.8	394	3	US-09-176-666-3
18	2131	91.8	396	3	US-09-176-666-2
19	2131	91.8	398	3	US-08-928-881-26
20	2131	91.8	398	4	US-09-176-666-1
21	2131	91.8	398	4	US-09-543-921-26
22	2131	91.8	398	4	US-09-266-014-4
23	2131	91.8	398	4	US-09-491-753-26
24	2110	90.9	381	3	US-09-176-666-12
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28	952.5	41.0	411	1	US-08-261-578-2	Sequence 2, Appli
29	952.5	41.0	411	3	US-09-070-356-3	Sequence 3, Appli
30	945.5	40.7	411	1	US-07-602-824A-3	Sequence 3, Appli
31	945.5	40.7	411	1	US-07-983-451-3	Sequence 3, Appli
32	945.5	40.7	411	1	US-08-261-577-8	Sequence 8, Appli
33	710.5	30.6	420	4	US-08-113-890-2	Sequence 2, Appli
34	687.5	29.6	363	1	US-08-488-961-4	Sequence 4, Appli
35	687.5	29.6	363	3	US-08-973-297-4	Sequence 4, Appli
36	687.5	29.6	363	5	PCT-US96-06511-4	Sequence 4, Appli
37	680.5	29.3	363	1	US-08-488-961-7	Sequence 7, Appli
38	680.5	29.3	363	3	PCT-US96-06511-7	Sequence 7, Appli
39	680.5	29.3	363	5	US-09-070-356-6	Sequence 6, Appli
40	679.5	29.3	411	3	US-07-602-824A-4	Sequence 4, Appli
41	600	25.8	404	1	US-07-602-608-4	Sequence 4, Appli
42	600	25.8	404	1	US-07-983-451-4	Sequence 4, Appli
43	600	25.8	404	1	US-08-261-578-4	Sequence 4, Appli
44	600	25.8	404	1	US-08-261-578-4	Sequence 4, Appli
45	600	25.8	404	1	US-08-261-577-10	Sequence 10, Appli

ALIGNMENTS

RESULT 1
US-07-602-824A-2
; Sequence 2, Application US/07602824A
; Patent No. 5356804
; GENERAL INFORMATION:
; APPLICANT: Deenick, Robert J.
; APPLICANT: Bishop, David F.
; APPLICANT: Ioannou, Yiannis A.
; TITLE OF INVENTION: CLONING AND EXPRESSION OF BIOLOGICALLY
; TITLE OF INVENTION: ACTIVE alpha-GALACTOSIDASE A
; NUMBER OF SEQUENCES: 13
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: PENNIE & EDMONDS
; STREET: 1155 Avenue of the Americas
; CITY: New York
; STATE: New York
; COUNTRY: U.S.A.
; ZIP: 10036
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent In Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/602,824A
; FILING DATE: 24-OCT-1990
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Coruzzi, Laura A.
; REGISTRATION NUMBER: 30,742
; REFERENCE/DOCKET NUMBER: 6923-005
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (212) 790-9090
; TELEFAX: (212) 869-8864/9741
; TELEX: 66141 PENNIE
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 429 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-07-602-824A-2

Query Match 98.8%; Score 2293; DB 1; Length 429;
Best Local Similarity 100.0%; Pred. No. 2.9e-232;
Matches 417; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MOLRNPGLHGCALALRFLALVSDIPGARALDNLGARTPTMGWLHWRFCMNCDCQEEP 60
DB 1 MOLRNPGLHGCALALRFLALVSDIPGARALDNLGARTPTMGWLHWRFCMNCDCQEEP 60

Qy 61 DSCISEKLFNEMAEIYVSEGKWDAGYBYLCIDDCWMAPOQDSEGRLOADPQPPHGIQRL 120
Db 61 DSCISEKLFNEMAEIYVSEGKWDAGYBYLCIDDCWMAPOQDSEGRLOADPQPPHGIQRL 120
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Qy 181 ADGKXMSLALNRTRGSIYVSCWPLMYMPFKENYTEIRQYCNHWRNFADIDDSWKSIIK 240
Db 181 ADGKXMSLALNRTRGSIYVSCWPLMYMPFKENYTEIRQYCNHWRNFADIDDSWKSIIK 240
Qy 241 SILDWTSEFQERIVDVAGPGGNDPDMLVIGNFGLSWQVQVTOALWAINAAPLFMSNDL 300
Db 241 SILDWTSEFQERIVDVAGPGGNDPDMLVIGNFGLSWQVQVTOALWAINAAPLFMSNDL 300
Qy 301 RHISPOKALLQDKDVIAINQDPLGKQGYOLROGDNFEVWERPLSLGLAWAVAMINROEIG 360
Db 301 RHISPOKALLQDKDVIAINQDPLGKQGYOLROGDNFEVWERPLSLGLAWAVAMINROEIG 360
Qy 361 GPRSYTIAVASLKGVCNCPACFITQLLPVKRLGIFYEWSRLSHINPTGTVLLOL 417
Db 361 GPRSYTIAVASLKGVCNCPACFITQLLPVKRLGIFYEWSRLSHINPTGTVLLOL 417

RESULT 2

US-07-602-608-3
; Sequence 3, Application US/07602608
; Patent No. 5382524
; GENERAL INFORMATION:
; APPLICANT: Desnick, Robert J.
; APPLICANT: Bishop, David F.
; APPLICANT: Ioannou, Yiannis A.
; APPLICANT: Wang, Anne M.
; TITLE OF INVENTION: CLONING AND EXPRESSION OF BIOLOGICALLY
; TITLE OF INVENTION: ACTIVE ALPHA-N-ACETYLGLACTOSAMINIDASE
; NUMBER OF SEQUENCES: 24
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: PENNIE & EDMONDS
; STREET: 1155 Avenue of the Americas
; CITY: New York
; STATE: New York
; COUNTRY: U.S.A.
; ZIP: 10036
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/602,608
; FILING DATE: 24-OCT-1990
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Coruzzi, Laura A.
; REGISTRATION NUMBER: 30,742
; REFERENCE/DOCKET NUMBER: 6923-008
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (212) 790-9090
; TELEFAX: (212) 869-8864/9741
; TELEX: 66141 PENNIE
; INFORMATION FOR SEQ ID NO: 3:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 429 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: unknown
; MOLECULE TYPE: protein
US-07-602-608-3

Query Match 98.8%; Score 2293; DB 1; Length 429;
Best Local Similarity 100.0%; Pred. No. 2.9e-232;

Matches 417; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
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Db 1 MQLRNPELHIGCALALRFLALVSDIFGARALDNLARTPTMGWLHWRPFMCNLDCCDEEP 60
Qy 61 DSCISEKLFNEMAEIYVSEGKWDAGYBYLCIDDCWMAPOQDSEGRLOADPQPPHGIQRL 120
Db 61 DSCISEKLFNEMAEIYVSEGKWDAGYBYLCIDDCWMAPOQDSEGRLOADPQPPHGIQRL 120
Qy 121 ANYVHSGKLGIGIYADVGNKTCAGPGSGFYDIDAOTFADWGVDDLLKFGDCYCDLSLENL 180
Db 121 ANYVHSGKLGIGIYADVGNKTCAGPGSGFYDIDAOTFADWGVDDLLKFGDCYCDLSLENL 180
Qy 181 ADGKXMSLALNRTRGSIYVSCWPLMYMPFKENYTEIRQYCNHWRNFADIDDSWKSIIK 240
Db 181 ADGKXMSLALNRTRGSIYVSCWPLMYMPFKENYTEIRQYCNHWRNFADIDDSWKSIIK 240
Qy 241 SILDWTSEFQERIVDVAGPGGNDPDMLVIGNFGLSWQVQVTOALWAINAAPLFMSNDL 300
Db 241 SILDWTSEFQERIVDVAGPGGNDPDMLVIGNFGLSWQVQVTOALWAINAAPLFMSNDL 300
Qy 301 RHISPOKALLQDKDVIAINQDPLGKQGYOLROGDNFEVWERPLSLGLAWAVAMINROEIG 360
Db 301 RHISPOKALLQDKDVIAINQDPLGKQGYOLROGDNFEVWERPLSLGLAWAVAMINROEIG 360
Qy 361 GPRSYTIAVASLKGVCNCPACFITQLLPVKRLGIFYEWSRLSHINPTGTVLLOL 417
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RESULT 3

US-07-983-451-2
; Sequence 2, Application US/07983451
; Patent No. 5401650
; GENERAL INFORMATION:
; APPLICANT: Desnick, Robert J.
; APPLICANT: Bishop, David F.
; APPLICANT: Ioannou, Yiannis A.
; TITLE OF INVENTION: Cloning and Expression of Biologically
; TITLE OF INVENTION: Active alpha-Galactosidase A
; NUMBER OF SEQUENCES: 13
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: PENNIE & EDMONDS
; STREET: 1155 Avenue of the Americas
; CITY: New York
; STATE: New York
; COUNTRY: U.S.A.
; ZIP: 10036
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patentin Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/983,451
; FILING DATE: 30-NOV-1992
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Coruzzi, Laura A.
; REGISTRATION NUMBER: 07/983,451
; REFERENCE/DOCKET NUMBER: 6923-030
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: 212-790-9090
; TELEFAX: 212-869-8864/9741
; TELEX: 66141 PENNIE
; INFORMATION FOR SEQ ID NO: 2:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 429 amino acids
; TYPE: amino acid
; TOPOLOGY: linear
; MOLECULE TYPE: protein
US-07-983-451-2

Query Match 98.8%; Score 2293; DB 1; Length 429;
Best Local Similarity 100.0%; Pred. No. 2.9e-232;
Matches 417; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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DB 1 MQLRNPHELHGCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWFHFMNLCDCQEEP 60

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DB 61 DSCISEKLFMEAEMLVSEGWKADAGEYLICDDCWMAFQDSEGRLOADPQRFPHGIROL 120

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DB 121 ANYVHSGKLGKIYADVGNKTCAGPFGSGYGYDIDAQTFADMGVLLKFDGCGYCDLSLENL 180

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DB 181 ADGYKMSLALNRTGRSIVYSCWPLVYMPFPKPNYTEIRQYCNHWRNFADIDDSWKSITK 240

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DB 241 SILDWTSTFQNERIVDVAGPGGWNDDMLVIGNFGLSNQOVTQMALWAIMAAPLFMSNDL 300

QY 301 RHISPOAKALLQDKDVIINQDPLGKQGYQLRQGNFVWERPLSGLAWAVAMINRQETG 360
DB 301 RHISPOAKALLQDKDVIINQDPLGKQGYQLRQGNFVWERPLSGLAWAVAMINRQETG 360

QY 361 GPRSYTIAVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLSHINPTGTVLQL 417
DB 361 GPRSYTIAVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLSHINPTGTVLQL 417

RESULT 4
US-08-261-578-3
; Sequence 3, Application US/08261578
; Patent No. 5491075
; GENERAL INFORMATION:
; APPLICANT: Desnick, Robert J.
; APPLICANT: Bishop, David F.
; APPLICANT: Ioannou, Yiannis A.
; APPLICANT: Wang, Anne M.
; TITLE OF INVENTION: CLONING AND EXPRESSION OF BIOLOGICALLY
; TITLE OF INVENTION: ACTIVE ALPHA-N-ACETYL GALACTOSAMINIDASE
; NUMBER OF SEQUENCES: 24
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: PENNIE & EDMONDS
; STREET: 1155 Avenue of the Americas
; CITY: New York
; STATE: New York
; COUNTRY: U.S.A.
; ZIP: 10036
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent in Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/261,578
; FILING DATE: 17-JUN-1994
; CLASSIFICATION: 435
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: US 07/602,608
; FILING DATE: 24-OCT-1990
; ATTORNEY/AGENT INFORMATION:
; NAME: Coruzzi, Laura A.
; REGISTRATION NUMBER: 30,742
; REFERENCE/DOCKET NUMBER: 6923-008
; TELECOMMUNICATION INFORMATION:
; TELEPHONE: (212) 790-9090
; TELEFAX: (212) 869-8864/9741
; TELEX: 66141 PENNIE

INFORMATION FOR SEQ ID NO: 3:
; SEQUENCE CHARACTERISTICS:
; LENGTH: 429 amino acids
; TYPE: amino acid
; STRANDEDNESS: single
; TOPOLOGY: unknown
; MOLECULE TYPE: protein
US-08-261-578-3

Query Match 98.8%; Score 2293; DB 1; Length 429;
Best Local Similarity 100.0%; Pred. No. 2.9e-232;
Matches 417; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MQLRNPHELHGCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWFHFMNLCDCQEEP 60
DB 1 MQLRNPHELHGCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWFHFMNLCDCQEEP 60

QY 61 DSCISEKLFMEAEMLVSEGWKADAGEYLICDDCWMAFQDSEGRLOADPQRFPHGIROL 120
DB 61 DSCISEKLFMEAEMLVSEGWKADAGEYLICDDCWMAFQDSEGRLOADPQRFPHGIROL 120

QY 121 ANYVHSGKLGKIYADVGNKTCAGPFGSGYGYDIDAQTFADMGVLLKFDGCGYCDLSLENL 180
DB 121 ANYVHSGKLGKIYADVGNKTCAGPFGSGYGYDIDAQTFADMGVLLKFDGCGYCDLSLENL 180

QY 181 ADGYKMSLALNRTGRSIVYSCWPLVYMPFPKPNYTEIRQYCNHWRNFADIDDSWKSITK 240
DB 181 ADGYKMSLALNRTGRSIVYSCWPLVYMPFPKPNYTEIRQYCNHWRNFADIDDSWKSITK 240

QY 241 SILDWTSTFQNERIVDVAGPGGWNDDMLVIGNFGLSNQOVTQMALWAIMAAPLFMSNDL 300
DB 241 SILDWTSTFQNERIVDVAGPGGWNDDMLVIGNFGLSNQOVTQMALWAIMAAPLFMSNDL 300

QY 301 RHISPOAKALLQDKDVIINQDPLGKQGYQLRQGNFVWERPLSGLAWAVAMINRQETG 360
DB 301 RHISPOAKALLQDKDVIINQDPLGKQGYQLRQGNFVWERPLSGLAWAVAMINRQETG 360

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DB 361 GPRSYTIAVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLSHINPTGTVLQL 417

RESULT 5
US-08-261-577-7
; Sequence 7, Application US/08261577
; Patent No. 5580757
; GENERAL INFORMATION:
; APPLICANT: Desnick, Robert J.
; APPLICANT: Bishop, David F.
; APPLICANT: Ioannou, Yiannis A.
; TITLE OF INVENTION: Cloning and Expression of Biologically
; TITLE OF INVENTION: Active alpha-Galactosidase A
; NUMBER OF SEQUENCES: 12
; CORRESPONDENCE ADDRESS:
; ADDRESSEE: Pennie & Edmonds
; STREET: 1155 Avenue of the Americas
; CITY: New York
; STATE: New York
; COUNTRY: USA
; ZIP: 10036
; COMPUTER READABLE FORM:
; MEDIUM TYPE: Floppy disk
; COMPUTER: IBM PC compatible
; OPERATING SYSTEM: PC-DOS/MS-DOS
; SOFTWARE: Patent in Release #1.0, Version #1.25
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/08/261,577
; FILING DATE: 17-JUN-1994
; CLASSIFICATION: 435
; ATTORNEY/AGENT INFORMATION:
; NAME: Coruzzi, Laura A.
; REGISTRATION NUMBER: 30,742
; REFERENCE/DOCKET NUMBER: 6923-042
; REFERENCE/DOCKET NUMBER: 6923-042

TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9090
TELEFAX: (212) 869-8864
TELEX: 66141 PENNIE
INFORMATION FOR SEQ ID NO: 7:
SEQUENCE CHARACTERISTICS:
LENGTH: 429 amino acids
TYPE: amino acid
TOPOLOGY: linear
MOLECULE TYPE: protein
US-08-261-577-7

Query Match 98.8%; Score 2293; DB 1; Length 429;
Best Local Similarity 100.0%; Pred. No. 2.9e-232;
Matches 417; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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DB 1 MQLRNPELHGCALALRFLALVSWDIPGARALDNLGLARTPTMGLHWRFCMNCDCQEEP 60
QY 61 DSCISEKLFMEAEMLVSEGWKDGAYEYLCIDCWAPQDSEGRLOADPQRPFGIRQL 120
DB 61 DSCISEKLFMEAEMLVSEGWKDGAYEYLCIDCWAPQDSEGRLOADPQRPFGIRQL 120
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DB 241 SILDWTSEFQRIYDVAGPGWNPDMVLVGNFGLSNQOQVOMALWAINAALPLFMSNDL 300
QY 301 RHISPOKALLQDKVIAINQDPLGKQYQLRQDNPFWVERPLSLGLAWAVAMINRQEIG 360
DB 301 RHISPOKALLQDKVIAINQDPLGKQYQLRQDNPFWVERPLSLGLAWAVAMINRQEIG 360
QY 361 GPRSYTIAVSLGKGVACNACFTITQLLPVKRKLGFYEWTSRLRSHINPTGTVLQL 417
DB 361 GPRSYTIAVSLGKGVACNACFTITQLLPVKRKLGFYEWTSRLRSHINPTGTVLQL 417
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RESULT 6

US-08-261-577-9

Sequence 9, Application US/08261577

Patent No. 5580757

GENERAL INFORMATION:

APPLICANT: Desnick, Robert J.

APPLICANT: Biehop, David P.

APPLICANT: Ioannou, Viannis A.

TITLE OF INVENTION: Cloning and Expression of Biologically

TITLE OF INVENTION: Active alpha-Galactosidase A

NUMBER OF SEQUENCES: 12

CORRESPONDENCE ADDRESS:

ADDRESSEE: Pennie & Edmonds

STREET: 1155 Avenue of the Americas

CITY: New York

STATE: New York

COUNTRY: USA

ZIP: 10036

COMPUTER READABLE FORM:

MEDIUM TYPE: Floppy disk

COMPUTER: IBM PC compatible

OPERATING SYSTEM: PC-DOS/MS-DOS

SOFTWARE: Patent In Release #1.0, Version #1.25

CURRENT APPLICATION DATA:

APPLICATION NUMBER: US/08/261,577

FILING DATE: 17-JUN-1994

CLASSIFICATION: 435

ATTORNEY/AGENT INFORMATION:

NAME: Coruzzi, Laura A.
REGISTRATION NUMBER: 30,742
REFERENCE/DOCKET NUMBER: 6923-042
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 790-9090
TELEFAX: (212) 869-8864
TELEX: 66141 PENNIE

INFORMATION FOR SEQ ID NO: 9:

SEQUENCE CHARACTERISTICS:

LENGTH: 429 amino acids

TYPE: amino acid

TOPOLOGY: unknown

MOLECULE TYPE: protein

US-08-261-577-9

Query Match 98.8%; Score 2293; DB 1; Length 429;

Best Local Similarity 100.0%; Pred. No. 2.9e-232;

Matches 417; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MQLRNPELHGCALALRFLALVSWDIPGARALDNLGLARTPTMGLHWRFCMNCDCQEEP 60

DB 1 MQLRNPELHGCALALRFLALVSWDIPGARALDNLGLARTPTMGLHWRFCMNCDCQEEP 60

QY 61 DSCISEKLFMEAEMLVSEGWKDGAYEYLCIDCWAPQDSEGRLOADPQRPFGIRQL 120

DB 61 DSCISEKLFMEAEMLVSEGWKDGAYEYLCIDCWAPQDSEGRLOADPQRPFGIRQL 120

QY 121 ANYVHSGKLGIGIYADVGNKTCAGPFGSGFYDIDAQTPADWGVLDLLKPDGCYCDSENL 180

DB 121 ANYVHSGKLGIGIYADVGNKTCAGPFGSGFYDIDAQTPADWGVLDLLKPDGCYCDSENL 180

QY 181 ADGYKMSLALNRTGRSIVYSCWPLYMPPFQKPNYTEIRQYCNHWRNFADIDDSWKSIX 240

DB 181 ADGYKMSLALNRTGRSIVYSCWPLYMPPFQKPNYTEIRQYCNHWRNFADIDDSWKSIX 240

QY 241 SILDWTSEFQRIYDVAGPGWNPDMVLVGNFGLSNQOQVOMALWAINAALPLFMSNDL 300

DB 241 SILDWTSEFQRIYDVAGPGWNPDMVLVGNFGLSNQOQVOMALWAINAALPLFMSNDL 300

QY 301 RHISPOKALLQDKVIAINQDPLGKQYQLRQDNPFWVERPLSLGLAWAVAMINRQEIG 360

DB 301 RHISPOKALLQDKVIAINQDPLGKQYQLRQDNPFWVERPLSLGLAWAVAMINRQEIG 360

QY 361 GPRSYTIAVSLGKGVACNACFTITQLLPVKRKLGFYEWTSRLRSHINPTGTVLQL 417

DB 361 GPRSYTIAVSLGKGVACNACFTITQLLPVKRKLGFYEWTSRLRSHINPTGTVLQL 417

RESULT 7

US-09-070-356-4

Sequence 4, Application US/09070356

Patent No. 6228631

GENERAL INFORMATION:

APPLICANT: Alex Zhu

APPLICANT: Jack Goldstein

TITLE OF INVENTION: Recombinant a-N-

TITLE OF INVENTION: Acetylglucosaminidase

TITLE OF INVENTION: Enzyme and cDNA Encoding

TITLE OF INVENTION: Said Enzyme

NUMBER OF SEQUENCES: 7

CORRESPONDENCE ADDRESS:

ADDRESSEE: Amster, Rothstein & Ebenstein

STREET: 90 Park Avenue

CITY: New York

STATE: New York

COUNTRY: U.S.A.

ZIP: 10016

COMPUTER READABLE FORM:

MEDIUM TYPE: 3.5 inch 1.44 Mb storage diskette

COMPUTER: IBM PC Compatible

OPERATING SYSTEM: MS-DOS

SOFTWARE: Word Processor (ASCII)

CURRENT APPLICATION DATA:

```

APPLICATION NUMBER: US/09/070,356
FILING DATE:
CLASSIFICATION:
PRIOR APPLICATION DATA: 09/037,248
APPLYING DATE: March 26, 1993
ATTORNEY/AGENT INFORMATION:
NAME: Pasqualini, Patricia A.
REGISTRATION NUMBER: 34,894
REFERENCE/DOCKET NUMBER: 63475/12
TELECOMMUNICATION INFORMATION:
TELEPHONE: (212) 697-5995
TELEFAX: (212) 286-0854 or 286-0082
TELEX: TWX 710-581-4766
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 429
TYPE: amino acid
STRANDEDNESS: double
TOPOLOGY: linear
MOLECULE TYPE:
DESCRIPTION: cDNA to mRNA
HYPOTHETICAL: no
ANTI-SENSE: yes
FRAGMENT TYPE:
ORIGINAL SOURCE:
ORGANISM: human
STRAIN:
INDIVIDUAL ISOLATE:
DEVELOPMENTAL STAGE:
HAPLOTYPE:
TISSUE TYPE:
CELL TYPE:
CELL LINE:
ORGANELLE:
IMMEDIATE SOURCE: library
POSITION IN GENOME: unknown
MAP POSITION:
UNITS:
FEATURE:
NAME/KEY: human a-galactosidase
LOCATION:
IDENTIFICATION METHOD:
OTHER INFORMATION:
PUBLICATION INFORMATION:
AUTHORS: Calhoun et al
TITLE: Fabry Disease: Isolation of a cDNA
TITLE: Clone Encoding Human a-Galactosidase A
JOURNAL: Proceedings of the National Academy
JOURNAL: of Science USA
VOLUME: 82
PAGES: 7364-7368
DATE: 1985
DOCUMENT NUMBER:
FILING DATE:
PUBLICATION DATE:
RELEVANT RESIDUES IN SEQ ID NO:
US-09-070-356-4

Query Match 98.6%; Score 2289; DB 3; Length 429;
Best Local Similarity 99.0%; Pred. No. 7.7e-232;
Matches 413; Conservative 4; Mismatches 0; Indels 0; Gaps 0;

QY 1 MOLRNPEHLGCGALALRFLALVSWDIPGARALDNGLARTPTMGWLHWFRCNLDQCEP 60
DB 1 MOLRNPEHLGCGALALRFLALVSWDIPGARALDNGLARTPTMGWLHWFRCNLDQCEP 60
QY 61 DSCISEKLFMEAEMLVSEGWKADAGYEYLCIDDCWMAPOQDSEGRLOADPQPFPHGIROL 120
DB 61 DSCISEKLFMEAEMLVSEGWKADAGYEYLCIDDCWMAPOQDSEGRLOADPQPFPHGIROL 120
QY 121 ANYVHSGKGLGIYADVGNKTCAGPPSGFYDDIAQTADFADGWVLLKFDGCGYCDLENL 180
DB 121 ANYVHSGKGLGIYADVGNKTCAGPPSGFYDDIAQTADFADGWVLLKFDGCGYCDLENL 180
QY 181 ADGYKMSLALNRTGRSIVYSCWPLYMPPKPNYTEIRQYCNHWRNPADIDDSWKSJK 240
DB 181 ADGYKMSLALNRTGRSIVYSCWPLYMPPKPNYTEIRQYCNHWRNPADIDDSWKSJK 240
QY 241 SILDWTSEFQERIVDVAGPGGNDPDLVGNFGLSNQOQVTQMALWAIMAAPLPMNDL 300
DB 241 SILDWTSEFQERIVDVAGPGGNDPDLVGNFGLSNQOQVTQMALWAIMAAPLPMNDL 300
QY 301 RHISPOAKALLQDKVIAINQDPLGKQGYQLRQGDNFVEWPERPLSGLAWAVAMINRQIG 360
DB 301 RHISPOAKALLQDKVIAINQDPLGKQGYQLRQGDNFVEWPERPLSGLAWAVAMINRQIG 360
QY 361 GPRSYTTIAVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLRSHINPTGTVLQL 417
DB 361 GPRSYTTIAVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLRSHINPTGTVLQL 417

RESULT 8
5179023-4
; Patent No. 5179023
; APPLICANT: CALHOUN, DAVID H.; COPPOLA, GEORGE
; TITLE OF INVENTION: RECOMBINANT a-GALACTOSIDASE A. THERAPY
; FOR FABRY DISEASE
; NUMBER OF SEQUENCES: 4
; CURRENT APPLICATION DATA:
; APPLICATION NUMBER: US/07/520,312
; FILING DATE: 07-MAY-1990
; PRIOR APPLICATION DATA:
; APPLICATION NUMBER: 328,421
; FILING DATE: 24-MAR-1989
; SEQ ID NO: 4
; LENGTH: 428
5179023-4

Query Match 98.0%; Score 2275; DB 6; Length 428;
Best Local Similarity 99.3%; Pred. No. 2.3e-230;
Matches 414; Conservative 0; Mismatches 3; Indels 0; Gaps 0;

QY 1 MOLRNPEHLGCGALALRFLALVSWDIPGARALDNGLARTPTMGWLHWFRCNLDQCEP 60
DB 1 MOLRNPEHLGCGALALRFLALVSWDIPGARALDNGLARTPTMGWLHWFRCNLDQCEP 60
QY 61 DSCISEKLFMEAEMLVSEGWKADAGYEYLCIDDCWMAPOQDSEGRLOADPQPFPHGIROL 120
DB 61 DSCISEKLFMEAEMLVSEGWKADAGYEYLCIDDCWMAPOQDSEGRLOADPQPFPHGIROL 120
QY 121 ANYVHSGKGLGIYADVGNKTCAGPPSGFYDDIAQTADFADGWVLLKFDGCGYCDLENL 180
DB 121 ANYVHSGKGLGIYADVGNKTCAGPPSGFYDDIAQTADFADGWVLLKFDGCGYCDLENL 180
QY 181 ADGYKMSLALNRTGRSIVYSCWPLYMPPKPNYTEIRQYCNHWRNPADIDDSWKSJK 240
DB 181 ADGYKMSLALNRTGRSIVYSCWPLYMPPKPNYTEIRQYCNHWRNPADIDDSWKSJK 240
QY 241 SILDWTSEFQERIVDVAGPGGNDPDLVGNFGLSNQOQVTQMALWAIMAAPLPMNDL 300
DB 241 SILDWTSEFQERIVDVAGPGGNDPDLVGNFGLSNQOQVTQMALWAIMAAPLPMNDL 300
QY 301 RHISPOAKALLQDKVIAINQDPLGKQGYQLRQGDNFVEWPERPLSGLAWAVAMINRQIG 360
DB 301 RHISPOAKALLQDKVIAINQDPLGKQGYQLRQGDNFVEWPERPLSGLAWAVAMINRQIG 360
QY 361 GPRSYTTIAVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLRSHINPTGTVLQL 417
DB 361 GPRSYTTIAVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLRSHINPTGTVLQL 417

RESULT 9
US-09-176-666-11
; Sequence 11, Application US/09176666

```

Patent No. 6210666
; GENERAL INFORMATION:
; APPLICANT: Miyamura, No. 6210666uhiro
; TITLE OF INVENTION: TRUNCATED alpha-GALACTOSIDASE A TO TREAT
; FILE REFERENCE: 101.018US1
; CURRENT APPLICATION NUMBER: US/09/176,666
; CURRENT FILING DATE: 1998-10-21
; EARLIER APPLICATION NUMBER: 60/062,650
; EARLIER FILING DATE: 1997-10-21
; NUMBER OF SEQ ID NOS: 54
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 11
; LENGTH: 386
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-176-666-11

Query Match 91.8%; Score 2131; DB 3; Length 386;
Best Local Similarity 100.0%; Pred. No. 2.6e-215;
Matches 386; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 32 LDNGLARTPTMGWLHWFMCNLDCCQEPDSCISEKLFMEAEMLVSEGWDAGYEYLCI 91
Db 1 LDNGLARTPTMGWLHWFMCNLDCCQEPDSCISEKLFMEAEMLVSEGWDAGYEYLCI 60
Qy 92 DDCWAPQDSEGRQLADPQRFPHGIRQLANYVHSGKLGKIYADVGNKTCAGPFGSGY 151
Db 61 DDCWAPQDSEGRQLADPQRFPHGIRQLANYVHSGKLGKIYADVGNKTCAGPFGSGY 120
Qy 152 YDIDAQTFADGWVLLKFDGCGYCDSENLDAGYKHSALNRTGSIYVSCWPLYMPPF 211
Db 121 YDIDAQTFADGWVLLKFDGCGYCDSENLDAGYKHSALNRTGSIYVSCWPLYMPPF 180
Qy 212 QKPNYTEIROYCNHWRNFADIDDSWKSISILDWTSFNOERIVDVAGPGGWNDDMLVIG 271
Db 181 QKPNYTEIROYCNHWRNFADIDDSWKSISILDWTSFNOERIVDVAGPGGWNDDMLVIG 240
Qy 272 NFGLSWNOQVOTOMALWAIMAAPLFMSNDLRHISPOAKALLQDKDVIAINQDPLKQGYQL 331
Db 241 NFGLSWNOQVOTOMALWAIMAAPLFMSNDLRHISPOAKALLQDKDVIAINQDPLKQGYQL 300
Qy 332 RQGNFVWERPLSGLAWAVAMINRQEIIGGPRSYTIAVASLGKGVACNPACFITQLLPVK 391
Db 301 RQGNFVWERPLSGLAWAVAMINRQEIIGGPRSYTIAVASLGKGVACNPACFITQLLPVK 360
Qy 392 RKLGFYEWTSRLRSHINPTGTVLLQL 417
Db 361 RKLGFYEWTSRLRSHINPTGTVLLQL 386

RESULT 10
US-09-176-666-10
; Sequence 10, Application US/09176666
; Patent No. 6210666
; GENERAL INFORMATION:
; APPLICANT: Miyamura, No. 6210666uhiro
; TITLE OF INVENTION: TRUNCATED alpha-GALACTOSIDASE A TO TREAT
; FILE REFERENCE: 101.018US1
; CURRENT APPLICATION NUMBER: US/09/176,666
; CURRENT FILING DATE: 1998-10-21
; EARLIER APPLICATION NUMBER: 60/062,650
; EARLIER FILING DATE: 1997-10-21
; NUMBER OF SEQ ID NOS: 54
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 10
; LENGTH: 387
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-176-666-10

Query Match 91.8%; Score 2131; DB 3; Length 387;

Best Local Similarity 100.0%; Pred. No. 2.6e-215;
Matches 386; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 32 LDNGLARTPTMGWLHWFMCNLDCCQEPDSCISEKLFMEAEMLVSEGWDAGYEYLCI 91
Db 1 LDNGLARTPTMGWLHWFMCNLDCCQEPDSCISEKLFMEAEMLVSEGWDAGYEYLCI 60
Qy 92 DDCWAPQDSEGRQLADPQRFPHGIRQLANYVHSGKLGKIYADVGNKTCAGPFGSGY 151
Db 61 DDCWAPQDSEGRQLADPQRFPHGIRQLANYVHSGKLGKIYADVGNKTCAGPFGSGY 120
Qy 152 YDIDAQTFADGWVLLKFDGCGYCDSENLDAGYKHSALNRTGSIYVSCWPLYMPPF 211
Db 121 YDIDAQTFADGWVLLKFDGCGYCDSENLDAGYKHSALNRTGSIYVSCWPLYMPPF 180
Qy 212 QKPNYTEIROYCNHWRNFADIDDSWKSISILDWTSFNOERIVDVAGPGGWNDDMLVIG 271
Db 181 QKPNYTEIROYCNHWRNFADIDDSWKSISILDWTSFNOERIVDVAGPGGWNDDMLVIG 240
Qy 272 NFGLSWNOQVOTOMALWAIMAAPLFMSNDLRHISPOAKALLQDKDVIAINQDPLKQGYQL 331
Db 241 NFGLSWNOQVOTOMALWAIMAAPLFMSNDLRHISPOAKALLQDKDVIAINQDPLKQGYQL 300
Qy 332 RQGNFVWERPLSGLAWAVAMINRQEIIGGPRSYTIAVASLGKGVACNPACFITQLLPVK 391
Db 301 RQGNFVWERPLSGLAWAVAMINRQEIIGGPRSYTIAVASLGKGVACNPACFITQLLPVK 360
Qy 392 RKLGFYEWTSRLRSHINPTGTVLLQL 417
Db 361 RKLGFYEWTSRLRSHINPTGTVLLQL 386

RESULT 11
US-09-176-666-9
; Sequence 9, Application US/09176666
; Patent No. 6210666
; GENERAL INFORMATION:
; APPLICANT: Miyamura, No. 6210666uhiro
; TITLE OF INVENTION: TRUNCATED alpha-GALACTOSIDASE A TO TREAT
; FILE REFERENCE: 101.018US1
; CURRENT APPLICATION NUMBER: US/09/176,666
; CURRENT FILING DATE: 1998-10-21
; EARLIER APPLICATION NUMBER: 60/062,650
; EARLIER FILING DATE: 1997-10-21
; NUMBER OF SEQ ID NOS: 54
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 9
; LENGTH: 388
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-176-666-9

Query Match 91.8%; Score 2131; DB 3; Length 388;
Best Local Similarity 100.0%; Pred. No. 2.6e-215;
Matches 386; Conservative 0; Mismatches 0; Indels 0; Gaps 0;
Qy 32 LDNGLARTPTMGWLHWFMCNLDCCQEPDSCISEKLFMEAEMLVSEGWDAGYEYLCI 91
Db 1 LDNGLARTPTMGWLHWFMCNLDCCQEPDSCISEKLFMEAEMLVSEGWDAGYEYLCI 60
Qy 92 DDCWAPQDSEGRQLADPQRFPHGIRQLANYVHSGKLGKIYADVGNKTCAGPFGSGY 151
Db 61 DDCWAPQDSEGRQLADPQRFPHGIRQLANYVHSGKLGKIYADVGNKTCAGPFGSGY 120
Qy 152 YDIDAQTFADGWVLLKFDGCGYCDSENLDAGYKHSALNRTGSIYVSCWPLYMPPF 211
Db 121 YDIDAQTFADGWVLLKFDGCGYCDSENLDAGYKHSALNRTGSIYVSCWPLYMPPF 180
Qy 212 QKPNYTEIROYCNHWRNFADIDDSWKSISILDWTSFNOERIVDVAGPGGWNDDMLVIG 271
Db 181 QKPNYTEIROYCNHWRNFADIDDSWKSISILDWTSFNOERIVDVAGPGGWNDDMLVIG 240

QY 272 NFGLSWNOQVOTQWALWMAAPLWMSNDRHSIPQAKALLQDKDVIAINODPLGKQGYOL 331
DB 241 NFGLSWNOQVOTQWALWMAAPLWMSNDRHSIPQAKALLQDKDVIAINODPLGKQGYOL 300
QY 332 RQGDNFEVWERPLSGLAWAVAMINROBQIGGPRSYTIAVASLGKGVACNPNACFTITQLLPVK 391
DB 301 RQGDNFEVWERPLSGLAWAVAMINROBQIGGPRSYTIAVASLGKGVACNPNACFTITQLLPVK 360
QY 392 RKLGFYEWTSRLRSHINPTGTLLQL 417
DB 361 RKLGFYEWTSRLRSHINPTGTLLQL 386

RESULT 12

US-09-176-666-8

; Sequence 8, Application US/09176666

; Patent No. 6210666

; GENERAL INFORMATION:

; APPLICANT: Miyamura, No. 6210666uhiro

; TITLE OF INVENTION: TRUNCATED alpha-GALACTOSIDASE A TO TREAT

; FILE REFERENCE: 101.018US1

; CURRENT APPLICATION NUMBER: US/09/176,666

; CURRENT FILING DATE: 1998-10-21

; EARLIER APPLICATION NUMBER: 60/062,650

; EARLIER FILING DATE: 1997-10-21

; NUMBER OF SEQ ID NOS: 54

; SOFTWARE: FastSeq for Windows Version 3.0

; SEQ ID NO 8

; LENGTH: 389

; TYPE: PRT

; ORGANISM: Homo sapiens

; US-09-176-666-8

Query Match

Best Local Similarity 91.8%; Score 2131; DB 3; Length 389;

Matches 386; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 32 LDNGLARTPTMGWLHWRFCNLDQCEPDSCISEKLFMEAEIYVSGWKDAGYEYLCI 91
DB 1 LDNGLARTPTMGWLHWRFCNLDQCEPDSCISEKLFMEAEIYVSGWKDAGYEYLCI 60
QY 92 DDCWMAPOQDSEGRLOADPQRPFGIRQLANYVHSGKLGIVADVGNKTCAGFPGSFGY 151
DB 61 DDCWMAPOQDSEGRLOADPQRPFGIRQLANYVHSGKLGIVADVGNKTCAGFPGSFGY 120
QY 152 YDIDAQTFADGWVLLKFGCGYCDSENLDGKYSKLSLNRTRGSRIVVSCWPLWMPF 211
DB 121 YDIDAQTFADGWVLLKFGCGYCDSENLDGKYSKLSLNRTRGSRIVVSCWPLWMPF 180
QY 212 QKPNYTEIRQYCNHWRNFADIDDSWKSISILDWTSFNQERIVDVAGPGWNPDMVLVIG 271
DB 181 QKPNYTEIRQYCNHWRNFADIDDSWKSISILDWTSFNQERIVDVAGPGWNPDMVLVIG 240
QY 272 NFGLSWNOQVOTQWALWMAAPLWMSNDRHSIPQAKALLQDKDVIAINODPLGKQGYOL 331
DB 241 NFGLSWNOQVOTQWALWMAAPLWMSNDRHSIPQAKALLQDKDVIAINODPLGKQGYOL 300
QY 332 RQGDNFEVWERPLSGLAWAVAMINROBQIGGPRSYTIAVASLGKGVACNPNACFTITQLLPVK 391
DB 301 RQGDNFEVWERPLSGLAWAVAMINROBQIGGPRSYTIAVASLGKGVACNPNACFTITQLLPVK 360
QY 392 RKLGFYEWTSRLRSHINPTGTLLQL 417
DB 361 RKLGFYEWTSRLRSHINPTGTLLQL 386

RESULT 13

US-09-176-666-7

; Sequence 7, Application US/09176666

; Patent No. 6210666

; GENERAL INFORMATION:

; APPLICANT: Miyamura, No. 6210666uhiro

Query Match

Best Local Similarity 91.8%; Score 2131; DB 3; Length 391;

Matches 386; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

; TITLE OF INVENTION: TRUNCATED alpha-GALACTOSIDASE A TO TREAT
; FILE REFERENCE: 101.018US1
; CURRENT APPLICATION NUMBER: US/09/176,666
; CURRENT FILING DATE: 1998-10-21
; EARLIER APPLICATION NUMBER: 60/062,650
; EARLIER FILING DATE: 1997-10-21
; NUMBER OF SEQ ID NOS: 54
; SOFTWARE: FastSeq for Windows Version 3.0
; SEQ ID NO 7
; LENGTH: 390
; TYPE: PRT
; ORGANISM: Homo sapiens
; US-09-176-666-7

Query Match 91.8%; Score 2131; DB 3; Length 390;
Best Local Similarity 100.0%; Pred. No. 2.7e-215;
Matches 386; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 32 LDNGLARTPTMGWLHWRFCNLDQCEPDSCISEKLFMEAEIYVSGWKDAGYEYLCI 91
DB 1 LDNGLARTPTMGWLHWRFCNLDQCEPDSCISEKLFMEAEIYVSGWKDAGYEYLCI 60
QY 92 DDCWMAPOQDSEGRLOADPQRPFGIRQLANYVHSGKLGIVADVGNKTCAGFPGSFGY 151
DB 61 DDCWMAPOQDSEGRLOADPQRPFGIRQLANYVHSGKLGIVADVGNKTCAGFPGSFGY 120
QY 152 YDIDAQTFADGWVLLKFGCGYCDSENLDGKYSKLSLNRTRGSRIVVSCWPLWMPF 211
DB 121 YDIDAQTFADGWVLLKFGCGYCDSENLDGKYSKLSLNRTRGSRIVVSCWPLWMPF 180
QY 212 QKPNYTEIRQYCNHWRNFADIDDSWKSISILDWTSFNQERIVDVAGPGWNPDMVLVIG 271
DB 181 QKPNYTEIRQYCNHWRNFADIDDSWKSISILDWTSFNQERIVDVAGPGWNPDMVLVIG 240
QY 272 NFGLSWNOQVOTQWALWMAAPLWMSNDRHSIPQAKALLQDKDVIAINODPLGKQGYOL 331
DB 241 NFGLSWNOQVOTQWALWMAAPLWMSNDRHSIPQAKALLQDKDVIAINODPLGKQGYOL 300
QY 332 RQGDNFEVWERPLSGLAWAVAMINROBQIGGPRSYTIAVASLGKGVACNPNACFTITQLLPVK 391
DB 301 RQGDNFEVWERPLSGLAWAVAMINROBQIGGPRSYTIAVASLGKGVACNPNACFTITQLLPVK 360
QY 392 RKLGFYEWTSRLRSHINPTGTLLQL 417
DB 361 RKLGFYEWTSRLRSHINPTGTLLQL 386

RESULT 14

US-09-176-666-6

; Sequence 6, Application US/09176666

; Patent No. 6210666

; GENERAL INFORMATION:

; APPLICANT: Miyamura, No. 6210666uhiro

; TITLE OF INVENTION: TRUNCATED alpha-GALACTOSIDASE A TO TREAT

; FILE REFERENCE: 101.018US1

; CURRENT APPLICATION NUMBER: US/09/176,666

; CURRENT FILING DATE: 1998-10-21

; EARLIER APPLICATION NUMBER: 60/062,650

; EARLIER FILING DATE: 1997-10-21

; NUMBER OF SEQ ID NOS: 54

; SOFTWARE: FastSeq for Windows Version 3.0

; SEQ ID NO 6

; LENGTH: 391

; TYPE: PRT

; ORGANISM: Homo sapiens

; US-09-176-666-6

QY 32 LDNGLARTPTMGWLHWPFCMNCDCQEBPDCISEKLFMEAEMLVSEGWKADAGYEYLCI 91
DB 1 LDNGLARTPTMGWLHWPFCMNCDCQEBPDCISEKLFMEAEMLVSEGWKADAGYEYLCI 60
QY 92 DDCWAPORDSEGRLOADPQRPFGIRQLANYVHSGKLGKIYADVGNKTCAGPFGSGY 151
DB 61 DDCWAPORDSEGRLOADPQRPFGIRQLANYVHSGKLGKIYADVGNKTCAGPFGSGY 120
QY 152 YDIDAQTFADMGVDLLKFDGCGYCDSENLADGKMSLALNRTGRSIVYSCWPLYMPPF 211
DB 121 YDIDAQTFADMGVDLLKFDGCGYCDSENLADGKMSLALNRTGRSIVYSCWPLYMPPF 180
QY 212 QKPNYTEIROQCNHWRNPADIDDSWKSISILDWTSFNOERIVDVAGGGWNDPDLVIG 271
DB 181 QKPNYTEIROQCNHWRNPADIDDSWKSISILDWTSFNOERIVDVAGGGWNDPDLVIG 240
QY 272 NFGLSWNOQVTQMALWMAAPLFMSNDLRHISPOAKALLODKVDVIAINQDPLGKQGYOL 331
DB 241 NFGLSWNOQVTQMALWMAAPLFMSNDLRHISPOAKALLODKVDVIAINQDPLGKQGYOL 300
QY 332 RQGNFEWVERPLSGLAWAVAMINRQEIIGGPRSYTIAVASLGKGVACNCPACFITOLLPVK 391
DB 301 RQGNFEWVERPLSGLAWAVAMINRQEIIGGPRSYTIAVASLGKGVACNCPACFITOLLPVK 360
QY 392 RKLGFYEWTSRLRSHINPTGTVLLQL 417
DB 361 RKLGFYEWTSRLRSHINPTGTVLLQL 386

RESULT 15

US-09-176-666-5
/ Sequence 5, Application US/09176666
/ Patent No. 6210666
/ GENERAL INFORMATION:
/ APPLICANT: Miyamura, No. 6210666uhiro
/ TITLE OF INVENTION: TRUNCATED alpha-GALACTOSIDASE A TO TREAT
/ TITLE OF INVENTION: FERRY DISEASE
/ FILE REFERENCE: 101.018US1
/ CURRENT APPLICATION NUMBER: US/09/176,666
/ EARLIER FILING DATE: 1998-10-21
/ EARLIER APPLICATION NUMBER: 60/062,650
/ EARLIER FILING DATE: 1997-10-21
/ NUMBER OF SEQ ID NOS: 54
/ SOFTWARE: FastSeq for Windows Version 3.0
/ SEQ ID NO 5
/ LENGTH: 392
/ TYPE: PRT
/ ORGANISM: Homo sapiens
US-09-176-666-5

Query Match 91.8%; Score 2131; DB 3; Length 392;
Best Local Similarity 100.0%; Pred. No. 2,7e-215;
Matches 386; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 32 LDNGLARTPTMGWLHWPFCMNCDCQEBPDCISEKLFMEAEMLVSEGWKADAGYEYLCI 91
DB 1 LDNGLARTPTMGWLHWPFCMNCDCQEBPDCISEKLFMEAEMLVSEGWKADAGYEYLCI 60
QY 92 DDCWAPORDSEGRLOADPQRPFGIRQLANYVHSGKLGKIYADVGNKTCAGPFGSGY 151
DB 61 DDCWAPORDSEGRLOADPQRPFGIRQLANYVHSGKLGKIYADVGNKTCAGPFGSGY 120
QY 152 YDIDAQTFADMGVDLLKFDGCGYCDSENLADGKMSLALNRTGRSIVYSCWPLYMPPF 211
DB 121 YDIDAQTFADMGVDLLKFDGCGYCDSENLADGKMSLALNRTGRSIVYSCWPLYMPPF 180
QY 212 QKPNYTEIROQCNHWRNPADIDDSWKSISILDWTSFNOERIVDVAGGGWNDPDLVIG 271
DB 181 QKPNYTEIROQCNHWRNPADIDDSWKSISILDWTSFNOERIVDVAGGGWNDPDLVIG 240
QY 272 NFGLSWNOQVTQMALWMAAPLFMSNDLRHISPOAKALLODKVDVIAINQDPLGKQGYOL 331
DB 241 NFGLSWNOQVTQMALWMAAPLFMSNDLRHISPOAKALLODKVDVIAINQDPLGKQGYOL 300

QY 332 RQGNFEWVERPLSGLAWAVAMINRQEIIGGPRSYTIAVASLGKGVACNCPACFITOLLPVK 391
DB 301 RQGNFEWVERPLSGLAWAVAMINRQEIIGGPRSYTIAVASLGKGVACNCPACFITOLLPVK 360
QY 392 RKLGFYEWTSRLRSHINPTGTVLLQL 417
DB 361 RKLGFYEWTSRLRSHINPTGTVLLQL 386

Search completed: January 29, 2004, 12:43:18
Job time : 23 secs

GenCore version 5.1.6
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OM protein - protein search, using sw model

Run on: January 29, 2004, 12:41:44 ; Search time 40 Seconds
(without alignments)
2197.740 Million cell updates/sec

Title: US-09-993-059-18
Perfect score: 2322
Sequence: 1 MOLRNPGLHGCALRFLA.....RSHINPTGVLLQSEKDEL 423

Scoring table: BLOSUM62
Gapop 10.0 , Gapext 0.5

Searched: 789580 seqs, 207824079 residues

Total number of hits satisfying chosen parameters: 789580

Minimum DB seq length: 0
Maximum DB seq length: 2000000000

Post-processing: Minimum Match 0%
Maximum Match 100%
Listing first 45 summaries

Database : Published Applications AA:

- 1: /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep.*
- 2: /cgn2_6/ptodata/1/pubpaa/PCT_NEW_PUB.pep.*
- 3: /cgn2_6/ptodata/1/pubpaa/US06_NEW_PUB.pep.*
- 4: /cgn2_6/ptodata/1/pubpaa/US06_PUBCOMB.pep.*
- 5: /cgn2_6/ptodata/1/pubpaa/US07_NEW_PUB.pep.*
- 6: /cgn2_6/ptodata/1/pubpaa/PCTUS_PUBCOMB.pep.*
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- 9: /cgn2_6/ptodata/1/pubpaa/US09A_PUBCOMB.pep.*
- 10: /cgn2_6/ptodata/1/pubpaa/US09B_PUBCOMB.pep.*
- 11: /cgn2_6/ptodata/1/pubpaa/US09C_PUBCOMB.pep.*
- 12: /cgn2_6/ptodata/1/pubpaa/US09_NEW_PUB.pep.*
- 13: /cgn2_6/ptodata/1/pubpaa/US10A_PUBCOMB.pep.*
- 14: /cgn2_6/ptodata/1/pubpaa/US10B_PUBCOMB.pep.*
- 15: /cgn2_6/ptodata/1/pubpaa/US10C_PUBCOMB.pep.*
- 16: /cgn2_6/ptodata/1/pubpaa/US10_NEW_PUB.pep.*
- 17: /cgn2_6/ptodata/1/pubpaa/US60_NEW_PUB.pep.*
- 18: /cgn2_6/ptodata/1/pubpaa/US60_PUBCOMB.pep.*

Pred. No. is the number of results predicted by chance to have a score greater than or equal to the score of the result being printed, and is derived by analysis of the total score distribution.

SUMMARIES

Result No.	Score	Query Match	Length	ID	Description
1	2322	100.0	423	12	US-10-602-219-18
2	2322	100.0	423	15	US-10-103-327-18
3	2310	99.5	427	12	US-10-602-219-14
4	2310	99.5	427	15	US-10-103-327-14
5	2308	99.4	431	12	US-10-602-219-10
6	2308	99.4	431	15	US-10-103-327-10
7	2306	99.3	435	12	US-10-602-219-6
8	2306	99.3	435	15	US-10-103-327-6
9	2293	98.8	417	12	US-10-602-219-16
10	2293	98.8	417	15	US-10-103-327-16
11	2293	98.8	421	15	US-10-602-219-12
12	2293	98.8	421	15	US-10-103-327-12
13	2293	98.8	478	12	US-10-131-410-106
14	2288	98.5	424	12	US-10-602-219-8
15	2288	98.5	424	15	US-10-103-327-8

Sequence 4, Appl
Sequence 4, Appl
Sequence 22, Appl
Sequence 20, Appl
Sequence 20, Appl
Sequence 20, Appl
Sequence 26, Appl
Sequence 20, Appl
Sequence 4, Appl
Sequence 4, Appl
Sequence 6525, Ap
Sequence 9014, Ap
Sequence 8170, Ap
Sequence 9724, Ap
Sequence 13129, A
Sequence 8616, Ap
Sequence 17876, A
Sequence 17883, A
Sequence 17264, A
Sequence 1294, Ap
Sequence 30, Appl
Sequence 9180, Ap
Sequence 10564, A
Sequence 26, Appl
Sequence 24, Appl
Sequence 8621, Ap
Sequence 13, Appl

ALIGNMENTS

RESULT 1
US-10-602-219-18
; Sequence 18, Application US/10602219
; Publication No: US20040016021A1
; GENERAL INFORMATION:
; APPLICANT: Large Scale Biology Corporation
; APPLICANT: Turpen, Thomas H.
; APPLICANT: Pogue, Gregory P.
; APPLICANT: Erwin, Robert L.
; APPLICANT: Grill, Laurence K.
; TITLE OF INVENTION: PRODUCTION OF LYSOSOMAL ENZYMES IN PLANTS BY TRANIENT EXPRESSI
; FILE REFERENCE: LSBC-0087-CP09B
; CURRENT APPLICATION NUMBER: US/10/602,219
; CURRENT FILING DATE: 2003-06-23
; PRIOR APPLICATION NUMBER: 09/993,059
; PRIOR FILING DATE: 2001-11-13
; PRIOR APPLICATION NUMBER: 09/626,127
; PRIOR FILING DATE: 2000-07-26
; PRIOR APPLICATION NUMBER: 09/316,572
; PRIOR FILING DATE: 1999-05-21
; PRIOR APPLICATION NUMBER: 08/324,003
; PRIOR FILING DATE: 1994-10-14
; PRIOR APPLICATION NUMBER: 08/176,414
; PRIOR FILING DATE: 1993-12-29
; PRIOR APPLICATION NUMBER: 07/997,733
; PRIOR FILING DATE: 1992-12-30
; PRIOR APPLICATION NUMBER: 08/184,237
; PRIOR FILING DATE: 1994-01-19
; PRIOR APPLICATION NUMBER: 07/923,692
; PRIOR FILING DATE: 1992-07-31
; PRIOR APPLICATION NUMBER: 07/600,244
; PRIOR FILING DATE: 1990-10-22
; PRIOR APPLICATION NUMBER: 07/641,617
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 32
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 18

; LENGTH: 423

; TYPE: PRT

; ORGANISM: Homo sapiens

US-10-602-219-18

Query Match.
Best Local Similarity 100.0%; Score 2322; DB 12; Length 423;
Matches 423; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MOLNPEHLGALALRFLALVSDIPCARALDNLGLARTPTMGWLHWFRCNLDCCQEEP 60
DB 1 MOLNPEHLGALALRFLALVSDIPCARALDNLGLARTPTMGWLHWFRCNLDCCQEEP 60
QY 61 DSCISEKLFMEAEALVSEGWKADAGEYELCIDDCWMAQRDSEGRLOADPQRPFGIRQL 120
DB 61 DSCISEKLFMEAEALVSEGWKADAGEYELCIDDCWMAQRDSEGRLOADPQRPFGIRQL 120
QY 121 ANYVHSGKLGKIYADVGNKTCAGPFGSGYVDIDAQTFADMGVDLLKFDGCGYCDLSLENL 180
DB 121 ANYVHSGKLGKIYADVGNKTCAGPFGSGYVDIDAQTFADMGVDLLKFDGCGYCDLSLENL 180
QY 181 ADGYKMSLALNRGTSIVYSCWPLNMFQKPNYETIROYCNHWRNFADIDDSWKSIIK 240
DB 181 ADGYKMSLALNRGTSIVYSCWPLNMFQKPNYETIROYCNHWRNFADIDDSWKSIIK 240
QY 241 SILDWTSTFQNERIVDVAGPGGNDPDMVLVGNFGLSNQOVTQMALWAIMAAPLFMSNDL 300
DB 241 SILDWTSTFQNERIVDVAGPGGNDPDMVLVGNFGLSNQOVTQMALWAIMAAPLFMSNDL 300
QY 301 RHISPOKALLQDKVDIAINODPLGKQGYQLROGDNFEVWERPLSGLAWAVAMINROEIG 360
DB 301 RHISPOKALLQDKVDIAINODPLGKQGYQLROGDNFEVWERPLSGLAWAVAMINROEIG 360
QY 361 GPRSYTTIYAVASLGKGVACNPACFTITOLLPVKRLGIFYEWTSLRASHINPTGTVLLQSEK 420
DB 361 GPRSYTTIYAVASLGKGVACNPACFTITOLLPVKRLGIFYEWTSLRASHINPTGTVLLQSEK 420
QY 421 DEL 423
DB 421 DEL 423

RESULT 2

US-10-103-327-18

; Sequence 18, Application US/10103327

; Publication No. US20030106095A1

; GENERAL INFORMATION:

; APPLICANT: GARGER, Stephen A.

; APPLICANT: TURPEN, Thomas H.

; APPLICANT: KUMAGAI, Monto H.

; TITLE OF INVENTION: PRODUCTION OF LYSSOSOMAL ENZYMES IN

; TITLE OF INVENTION: PLANTS BY TRANSIENT EXPRESSION

; FILE REFERENCE: 008010087CPUS06

; CURRENT APPLICATION NUMBER: US/10/103,327

; CURRENT FILING DATE: 2002-03-20

; PRIOR APPLICATION NUMBER: US/09/993,059

; PRIOR FILING DATE: 2001-11-13

; NUMBER OF SEQ ID NOS: 37

; SOFTWARE: FastSeq for Windows Version 4.0

; SEQ ID NO 18

; LENGTH: 423

; TYPE: PRT

; ORGANISM: Homo sapiens

US-10-103-327-18

Query Match
Best Local Similarity 100.0%; Score 2322; DB 15; Length 423;
Matches 423; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

QY 1 MOLNPEHLGALALRFLALVSDIPCARALDNLGLARTPTMGWLHWFRCNLDCCQEEP 60
DB 1 MOLNPEHLGALALRFLALVSDIPCARALDNLGLARTPTMGWLHWFRCNLDCCQEEP 60

QY 61 DSCISEKLFMEAEALVSEGWKADAGEYELCIDDCWMAQRDSEGRLOADPQRPFGIRQL 120
DB 61 DSCISEKLFMEAEALVSEGWKADAGEYELCIDDCWMAQRDSEGRLOADPQRPFGIRQL 120
QY 121 ANYVHSGKLGKIYADVGNKTCAGPFGSGYVDIDAQTFADMGVDLLKFDGCGYCDLSLENL 180
DB 121 ANYVHSGKLGKIYADVGNKTCAGPFGSGYVDIDAQTFADMGVDLLKFDGCGYCDLSLENL 180
QY 181 ADGYKMSLALNRGTSIVYSCWPLNMFQKPNYETIROYCNHWRNFADIDDSWKSIIK 240
DB 181 ADGYKMSLALNRGTSIVYSCWPLNMFQKPNYETIROYCNHWRNFADIDDSWKSIIK 240
QY 241 SILDWTSTFQNERIVDVAGPGGNDPDMVLVGNFGLSNQOVTQMALWAIMAAPLFMSNDL 300
DB 241 SILDWTSTFQNERIVDVAGPGGNDPDMVLVGNFGLSNQOVTQMALWAIMAAPLFMSNDL 300
QY 301 RHISPOKALLQDKVDIAINODPLGKQGYQLROGDNFEVWERPLSGLAWAVAMINROEIG 360
DB 301 RHISPOKALLQDKVDIAINODPLGKQGYQLROGDNFEVWERPLSGLAWAVAMINROEIG 360
QY 361 GPRSYTTIYAVASLGKGVACNPACFTITOLLPVKRLGIFYEWTSLRASHINPTGTVLLQSEK 420
DB 361 GPRSYTTIYAVASLGKGVACNPACFTITOLLPVKRLGIFYEWTSLRASHINPTGTVLLQSEK 420
QY 421 DEL 423
DB 421 DEL 423

RESULT 3

US-10-602-219-14

; Sequence 14, Application US/10602219

; Publication No. US20040016021A1

; GENERAL INFORMATION:

; APPLICANT: Large Scale Biology Corporation

; APPLICANT: Turpen, Thomas H.

; APPLICANT: Pogue, Gregory P.

; APPLICANT: Erwin, Robert L.

; APPLICANT: Grill, Laurence K.

; TITLE OF INVENTION: PRODUCTION OF LYSSOSOMAL ENZYMES IN PLANTS BY TRANSIENT EXPRE

; FILE REFERENCE: LSBC-0087-CP09B

; CURRENT APPLICATION NUMBER: US/10/602,219

; CURRENT FILING DATE: 2003-06-23

; PRIOR APPLICATION NUMBER: 09/993,059

; PRIOR FILING DATE: 2001-11-13

; PRIOR APPLICATION NUMBER: 09/626,127

; PRIOR FILING DATE: 2000-07-26

; PRIOR APPLICATION NUMBER: 09/316,572

; PRIOR FILING DATE: 1999-05-21

; PRIOR APPLICATION NUMBER: 08/324,003

; PRIOR FILING DATE: 1994-10-14

; PRIOR APPLICATION NUMBER: 08/176,414

; PRIOR FILING DATE: 1993-12-29

; PRIOR APPLICATION NUMBER: 07/997,733

; PRIOR FILING DATE: 1992-12-30

; PRIOR APPLICATION NUMBER: 08/184,237

; PRIOR FILING DATE: 1994-01-19

; PRIOR APPLICATION NUMBER: 07/923,692

; PRIOR FILING DATE: 1992-07-31

; PRIOR APPLICATION NUMBER: 07/600,244

; PRIOR FILING DATE: 1990-10-22

; PRIOR APPLICATION NUMBER: 07/641,617

; PRIOR FILING DATE: 1991-01-16

; Remaining prior Application data removed - See File Wrapper or PALM.

; NUMBER OF SEQ ID NOS: 32

; SOFTWARE: Patencin version 3.2

; SEQ ID NO 14

; LENGTH: 427

; TYPE: PRT

; ORGANISM: Homo sapiens

US-10-602-219-14

Query Match

99.5%; Score 2310; DB 12; Length 427;

Best Local Similarity 99.1%; Pred. No. 1.5e-228;
Matches 423; Conservative 0; Mismatches 0; Indels 4; Gaps 1;

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Db 1 MOLRNPEHLGCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWFMCNLDCCQEEP 60
Qy 61 DSCISEKLFMEAEMLVSEGWKADAGEYLCIDDCWMAFQDSEGRLOADPQPFPHGIRQL 120
Db 61 DSCISEKLFMEAEMLVSEGWKADAGEYLCIDDCWMAFQDSEGRLOADPQPFPHGIRQL 120
Qy 121 ANYVHSGKLGIGIYADVGNKTCAGPFGSGFYDDIDAQTFADGWVLLKFDGCGYCDLSLENL 180
Db 121 ANYVHSGKLGIGIYADVGNKTCAGPFGSGFYDDIDAQTFADGWVLLKFDGCGYCDLSLENL 180
Qy 181 ADGYKMSLALNRTGRSIVYSCENPLYMPPKPNYTEIROQCNHWRNFADIDDSWKSIX 240
Db 181 ADGYKMSLALNRTGRSIVYSCENPLYMPPKPNYTEIROQCNHWRNFADIDDSWKSIX 240
Qy 241 SILDWTSTFNOERIVDVAGPGGWNDDMLVGNFGLSNQOVTOMALWAIMAAPLPMNDL 300
Db 241 SILDWTSTFNOERIVDVAGPGGWNDDMLVGNFGLSNQOVTOMALWAIMAAPLPMNDL 300
Qy 301 RHISPOAKALLQDKDVIAINODPLGKQGYQLRQGNFVWERPLSGLAWAVAMINROEIG 360
Db 301 RHISPOAKALLQDKDVIAINODPLGKQGYQLRQGNFVWERPLSGLAWAVAMINROEIG 360
Qy 361 GPRSYTIAVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLRSHINPTGTVLQL 417
Db 361 GPRSYTIAVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLRSHINPTGTVLQL 417
Qy 418 -SEKDEL 423
Db 421 MSEKDEL 427
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RESULT 4

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US-10-103-327-14
; Sequence 14, Application US/10103327
; Publication No. US20030106095A1
; GENERAL INFORMATION:
; APPLICANT: GARGER, Stephen A.
; APPLICANT: TURPEN, Thomas H.
; APPLICANT: KUMAGAI, Monto H.
; TITLE OF INVENTION: PRODUCTION OF LYSOSOMAL ENZYMES IN
; FILE REFERENCE: 008010087CPUS06
; CURRENT APPLICATION NUMBER: US/10/103.327
; PRIOR FILING DATE: 2002-03-20
; PRIOR APPLICATION NUMBER: US/09/993.059
; PRIOR FILING DATE: 2001-11-13
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 14
; LENGTH: 427
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-103-327-14
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Query Match 99.5%; Score 2310; DB 15; Length 427;
Best Local Similarity 99.1%; Pred. No. 1.5e-228;
Matches 423; Conservative 0; Mismatches 0; Indels 4; Gaps 1;

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Db 1 MOLRNPEHLGCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWFMCNLDCCQEEP 60
Qy 61 DSCISEKLFMEAEMLVSEGWKADAGEYLCIDDCWMAFQDSEGRLOADPQPFPHGIRQL 120
Db 61 DSCISEKLFMEAEMLVSEGWKADAGEYLCIDDCWMAFQDSEGRLOADPQPFPHGIRQL 120
Qy 121 ANYVHSGKLGIGIYADVGNKTCAGPFGSGFYDDIDAQTFADGWVLLKFDGCGYCDLSLENL 180
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Db 121 ANYVHSGKLGIGIYADVGNKTCAGPFGSGFYDDIDAQTFADGWVLLKFDGCGYCDLSLENL 180
Qy 181 ADGYKMSLALNRTGRSIVYSCENPLYMPPKPNYTEIROQCNHWRNFADIDDSWKSIX 240
Db 181 ADGYKMSLALNRTGRSIVYSCENPLYMPPKPNYTEIROQCNHWRNFADIDDSWKSIX 240
Qy 241 SILDWTSTFNOERIVDVAGPGGWNDDMLVGNFGLSNQOVTOMALWAIMAAPLPMNDL 300
Db 241 SILDWTSTFNOERIVDVAGPGGWNDDMLVGNFGLSNQOVTOMALWAIMAAPLPMNDL 300
Qy 301 RHISPOAKALLQDKDVIAINODPLGKQGYQLRQGNFVWERPLSGLAWAVAMINROEIG 360
Db 301 RHISPOAKALLQDKDVIAINODPLGKQGYQLRQGNFVWERPLSGLAWAVAMINROEIG 360
Qy 361 GPRSYTIAVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLRSHINPTGTVLQL 417
Db 361 GPRSYTIAVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLRSHINPTGTVLQL 417
Qy 418 -SEKDEL 423
Db 421 MSEKDEL 427
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RESULT 5

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US-10-602-219-10
; Sequence 10, Application US/10602219
; Publication No. US20040016021A1
; GENERAL INFORMATION:
; APPLICANT: Large Scale Biology Corporation
; APPLICANT: Turpen, Thomas H.
; APPLICANT: Pogue, Gregory P.
; APPLICANT: Erwin, Robert L.
; APPLICANT: Grill, Laurence K.
; TITLE OF INVENTION: PRODUCTION OF LYSOSOMAL ENZYMES IN PLANTS BY TRANIENT EXPRESSI
; FILE REFERENCE: LSBC-0087-CP09B
; CURRENT APPLICATION NUMBER: US/10/602.219
; PRIOR FILING DATE: 2003-06-23
; PRIOR APPLICATION NUMBER: 09/993.059
; PRIOR FILING DATE: 2001-11-13
; PRIOR APPLICATION NUMBER: 09/626.127
; PRIOR FILING DATE: 2000-07-26
; PRIOR APPLICATION NUMBER: 09/316.572
; PRIOR FILING DATE: 1999-05-21
; PRIOR APPLICATION NUMBER: 08/324.003
; PRIOR FILING DATE: 1994-10-14
; PRIOR APPLICATION NUMBER: 08/176.414
; PRIOR FILING DATE: 1993-12-29
; PRIOR APPLICATION NUMBER: 07/997.733
; PRIOR FILING DATE: 1992-12-30
; PRIOR APPLICATION NUMBER: 08/184.237
; PRIOR FILING DATE: 1994-01-19
; PRIOR APPLICATION NUMBER: 07/923.692
; PRIOR FILING DATE: 1992-07-31
; PRIOR APPLICATION NUMBER: 07/600.244
; PRIOR FILING DATE: 1990-10-22
; PRIOR APPLICATION NUMBER: 07/641.617
; PRIOR FILING DATE: 1991-01-16
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 32
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 10
; LENGTH: 431
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-602-219-10
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Query Match 99.4%; Score 2308; DB 12; Length 431;
Best Local Similarity 98.1%; Pred. No. 2.4e-228;
Matches 423; Conservative 0; Mismatches 0; Indels 8; Gaps 1;

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Db 1 MOLRNPEHLGCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWFMCNLDCCQEEP 60
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QY 61 DSCISEKLFMEAEALVSEGWKADAGEYVLCIDDCWMAPOQDSEGRLOADPQPFPHGIRQL 120
 DB 61 DSCISEKLFMEAEALVSEGWKADAGEYVLCIDDCWMAPOQDSEGRLOADPQPFPHGIRQL 120
 QY 121 ANYVHSKGLKGIYADVGNKTCAGFPGSFGYYDIDAQTFADGWVDLLKFDGCYCDLSLENL 180
 DB 121 ANYVHSKGLKGIYADVGNKTCAGFPGSFGYYDIDAQTFADGWVDLLKFDGCYCDLSLENL 180
 QY 181 ADGYKMSALNRTGRSIVYSCWPLVYMPFKPNYTEIRQYCNHWRNFADIDDSWSKSIK 240
 DB 181 ADGYKMSALNRTGRSIVYSCWPLVYMPFKPNYTEIRQYCNHWRNFADIDDSWSKSIK 240
 QY 241 SILDWTSFNQERIIVDVAGPGGNDPDMVLVGNFGLSNQOQVTOALWAIMAAPLFMSNDL 300
 DB 241 SILDWTSFNQERIIVDVAGPGGNDPDMVLVGNFGLSNQOQVTOALWAIMAAPLFMSNDL 300
 QY 301 RHISPOKALLQDKDVAINODPLGKQGYQLROGDNFEVWERPLSGLAWAVAMINRQBIG 360
 DB 301 RHISPOKALLQDKDVAINODPLGKQGYQLROGDNFEVWERPLSGLAWAVAMINRQBIG 360
 QY 361 GPRSYTIAVASLKGAVACNPACFITQLLPVKRLGFGYEWTSRLRSHINPTGTVLQ---- 416
 DB 361 GPRSYTIAVASLKGAVACNPACFITQLLPVKRLGFGYEWTSRLRSHINPTGTVLQLENT 420
 QY 417 ----LSEKDEL 423
 DB 421 MQMSLSEKDEL 431

RESULT 6

US-10-103-327-10

; Sequence 10, Application US/10103327

; Publication No. US20030106095A1

; GENERAL INFORMATION:

; APPLICANT: GARGER, Stephen A.

; APPLICANT: TURPEN, Thomas H.

; APPLICANT: KUNAGAI, Moncho H.

; TITLE OF INVENTION: PRODUCTION OF LYSOSOMAL ENZYMES IN

; FILE OF INVENTION: PLANTS BY TRANSIENT EXPRESSION

; FILE REFERENCE: 008010087CPUS06

; CURRENT APPLICATION NUMBER: US/10/103.327

; CURRENT FILING DATE: 2002-03-20

; PRIOR APPLICATION NUMBER: US/09/993,059

; PRIOR FILING DATE: 2001-11-13

; NUMBER OF SEQ ID NOS: 37

; SOFTWARE: FastSeq for Windows Version 4.0

; SEQ ID NO 10

; LENGTH: 431

; TYPE: PRT

; ORGANISM: Homo sapiens

US-10-103-327-10

Query Match 99.4%; Score 2308; DB 15; Length 431;
 Best Local Similarity 98.1%; Pred. No. 2.4e-228;
 Matches 423; Conservative 0; Mismatches 0; Indels 8; Gaps 1;

QY 1 MOLNPELHLCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWRFCNLDCCQEEP 60
 DB 1 MOLNPELHLCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWRFCNLDCCQEEP 60
 QY 61 DSCISEKLFMEAEALVSEGWKADAGEYVLCIDDCWMAPOQDSEGRLOADPQPFPHGIRQL 120
 DB 61 DSCISEKLFMEAEALVSEGWKADAGEYVLCIDDCWMAPOQDSEGRLOADPQPFPHGIRQL 120
 QY 121 ANYVHSKGLKGIYADVGNKTCAGFPGSFGYYDIDAQTFADGWVDLLKFDGCYCDLSLENL 180
 DB 121 ANYVHSKGLKGIYADVGNKTCAGFPGSFGYYDIDAQTFADGWVDLLKFDGCYCDLSLENL 180
 QY 181 ADGYKMSALNRTGRSIVYSCWPLVYMPFKPNYTEIRQYCNHWRNFADIDDSWSKSIK 240
 DB 181 ADGYKMSALNRTGRSIVYSCWPLVYMPFKPNYTEIRQYCNHWRNFADIDDSWSKSIK 240

QY 241 SILDWTSFNQERIIVDVAGPGGNDPDMVLVGNFGLSNQOQVTOALWAIMAAPLFMSNDL 300
 DB 241 SILDWTSFNQERIIVDVAGPGGNDPDMVLVGNFGLSNQOQVTOALWAIMAAPLFMSNDL 300
 QY 301 RHISPOKALLQDKDVAINODPLGKQGYQLROGDNFEVWERPLSGLAWAVAMINRQBIG 360
 DB 301 RHISPOKALLQDKDVAINODPLGKQGYQLROGDNFEVWERPLSGLAWAVAMINRQBIG 360
 QY 361 GPRSYTIAVASLKGAVACNPACFITQLLPVKRLGFGYEWTSRLRSHINPTGTVLQ---- 416
 DB 361 GPRSYTIAVASLKGAVACNPACFITQLLPVKRLGFGYEWTSRLRSHINPTGTVLQLENT 420
 QY 417 ----LSEKDEL 423
 DB 421 MQMSLSEKDEL 431

RESULT 7

US-10-602-219-6

; Sequence 6, Application US/10602219

; Publication No. US20040016021A1

; GENERAL INFORMATION:

; APPLICANT: Large Scale Biology Corporation

; APPLICANT: Turpen, Thomas H.

; APPLICANT: Pogue, Gregory P.

; APPLICANT: Erwin, Robert L.

; APPLICANT: Grill, Laurence K.

; TITLE OF INVENTION: PRODUCTION OF LYSOSOMAL ENZYMES IN PLANTS BY TRANSIENT EXPRE

; FILE REFERENCE: LSBC-0087-CP09B

; CURRENT APPLICATION NUMBER: US/10/602,219

; CURRENT FILING DATE: 2003-06-23

; PRIOR APPLICATION NUMBER: 09/993,059

; PRIOR FILING DATE: 2001-11-13

; PRIOR APPLICATION NUMBER: 09/626,127

; PRIOR FILING DATE: 2000-07-26

; PRIOR APPLICATION NUMBER: 09/316,572

; PRIOR FILING DATE: 1999-05-21

; PRIOR APPLICATION NUMBER: 08/324,003

; PRIOR FILING DATE: 1994-10-14

; PRIOR APPLICATION NUMBER: 08/176,414

; PRIOR FILING DATE: 1993-12-29

; PRIOR APPLICATION NUMBER: 07/997,733

; PRIOR FILING DATE: 1992-12-30

; PRIOR APPLICATION NUMBER: 08/184,237

; PRIOR FILING DATE: 1994-01-19

; PRIOR APPLICATION NUMBER: 07/923,692

; PRIOR FILING DATE: 1992-07-31

; PRIOR APPLICATION NUMBER: 07/600,244

; PRIOR FILING DATE: 1990-10-22

; PRIOR APPLICATION NUMBER: 07/641,617

; PRIOR FILING DATE: 1991-01-16

; Remaining Prior Application data removed - See File Wrapper or PALM.

; NUMBER OF SEQ ID NOS: 32

; SOFTWARE: PatentIn version 3.2

; SEQ ID NO 6

; LENGTH: 435

; TYPE: PRT

; ORGANISM: Homo sapiens

US-10-602-219-6

Query Match 99.3%; Score 2306; DB 12; Length 435;
 Best Local Similarity 97.2%; Pred. No. 4e-228;
 Matches 423; Conservative 0; Mismatches 0; Indels 12; Gaps 1;

QY 1 MOLNPELHLCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWRFCNLDCCQEEP 60
 DB 1 MOLNPELHLCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWRFCNLDCCQEEP 60
 QY 61 DSCISEKLFMEAEALVSEGWKADAGEYVLCIDDCWMAPOQDSEGRLOADPQPFPHGIRQL 120
 DB 61 DSCISEKLFMEAEALVSEGWKADAGEYVLCIDDCWMAPOQDSEGRLOADPQPFPHGIRQL 120
 QY 121 ANYVHSKGLKGIYADVGNKTCAGFPGSFGYYDIDAQTFADGWVDLLKFDGCYCDLSLENL 180

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Db 121 ANYVHSGKLGIGIYADVGNKTCAGPFGSGFYDIDAQTFADWGVDDLKFGDCYCDLLENL 180
Qy 181 ADGKXMSLALNRTGRSIVYSCWPLMYPFKPNTYIRQYCNHWRNFADIDDSWKSIX 240
Db 181 ADGKXMSLALNRTGRSIVYSCWPLMYPFKPNTYIRQYCNHWRNFADIDDSWKSIX 240
Qy 241 SILDWTSPNQRIVDVAGPGGNDPDLVIGNFGLSWNNQVQTQWALWAIMAAPLFMSNDL 300
Db 241 SILDWTSPNQRIVDVAGPGGNDPDLVIGNFGLSWNNQVQTQWALWAIMAAPLFMSNDL 300
Qy 301 RHISPOAKALLQDKOVIAINQDPLGKQGYQLROGDNFEVWERPLSLGLAWAVAMINRQEG 360
Db 301 RHISPOAKALLQDKOVIAINQDPLGKQGYQLROGDNFEVWERPLSLGLAWAVAMINRQEG 360
Qy 361 GPRSYTIAVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLRSHINPTGTVLLO--- 416
Db 361 GPRSYTIAVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLRSHINPTGTVLLOLENT 420
Qy 417 -----LSEKDEL 423
Db 421 MQMSLKDLLSEKDEL 435

RESULT 8
US-10-103-327-6
; Sequence 6, Application US/10103327
; Publication No. US20030106095A1
; GENERAL INFORMATION:
; APPLICANT: GARGER, Stephen A.
; APPLICANT: TURPEN, Thomas H.
; APPLICANT: KIMAGAI, Monto H.
; TITLE OF INVENTION: PRODUCTION OF LYSOSOMAL ENZYMES IN
; FILE REFERENCE: 008010087CPUS06
; CURRENT APPLICATION NUMBER: US/10/103,327
; PRIOR FILING DATE: 2002-03-20
; PRIOR APPLICATION NUMBER: US/09/993,059
; PRIOR FILING DATE: 2001-11-13
; NUMBER OF SEQ ID NOS: 37
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 6
; LENGTH: 435
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-103-327-6

Query Match 99.3%; Score 2306; DB 15; Length 435;
Best Local Similarity 97.2%; Pred. No. 4e-228;
Matches 423; Conservative 0; Mismatches 0; Indels 12; Gaps 1;

Qy 1 MOLRNPGLHGCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWRPFCNLDCCQEEP 60
Db 1 MOLRNPGLHGCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWRPFCNLDCCQEEP 60
Qy 61 DSCISEKLFMEAEMLVSEGWKADAGEYLCIDDCWMAQORDSEGRLOADPQRFPHGIRQL 120
Db 61 DSCISEKLFMEAEMLVSEGWKADAGEYLCIDDCWMAQORDSEGRLOADPQRFPHGIRQL 120
Qy 121 ANYVHSGKLGIGIYADVGNKTCAGPFGSGFYDIDAQTFADWGVDDLKFGDCYCDLLENL 180
Db 121 ANYVHSGKLGIGIYADVGNKTCAGPFGSGFYDIDAQTFADWGVDDLKFGDCYCDLLENL 180
Qy 181 ADGKXMSLALNRTGRSIVYSCWPLMYPFKPNTYIRQYCNHWRNFADIDDSWKSIX 240
Db 181 ADGKXMSLALNRTGRSIVYSCWPLMYPFKPNTYIRQYCNHWRNFADIDDSWKSIX 240
Qy 241 SILDWTSPNQRIVDVAGPGGNDPDLVIGNFGLSWNNQVQTQWALWAIMAAPLFMSNDL 300
Db 241 SILDWTSPNQRIVDVAGPGGNDPDLVIGNFGLSWNNQVQTQWALWAIMAAPLFMSNDL 300
Qy 301 RHISPOAKALLQDKOVIAINQDPLGKQGYQLROGDNFEVWERPLSLGLAWAVAMINRQEG 360
Db 301 RHISPOAKALLQDKOVIAINQDPLGKQGYQLROGDNFEVWERPLSLGLAWAVAMINRQEG 360
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Db 301 RHISPOAKALLQDKOVIAINQDPLGKQGYQLROGDNFEVWERPLSLGLAWAVAMINRQEG 360
Qy 361 GPRSYTIAVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLRSHINPTGTVLLO--- 416
Db 361 GPRSYTIAVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLRSHINPTGTVLLOLENT 420
Qy 417 -----LSEKDEL 423
Db 421 MQMSLKDLLSEKDEL 435

RESULT 9
US-10-602-219-16
; Sequence 16, Application US/10602219
; Publication No. US20040016021A1
; GENERAL INFORMATION:
; APPLICANT: Large Scale Biology Corporation
; APPLICANT: Turpen, Thomas H.
; APPLICANT: Pogue, Gregory P.
; APPLICANT: Erwin, Robert L.
; APPLICANT: Grill, Laurence K.
; TITLE OF INVENTION: PRODUCTION OF LYSOSOMAL ENZYMES IN PLANTS BY TRANSIENT EXPRESSION
; FILE REFERENCE: LSBC-0087-CP09B
; CURRENT APPLICATION NUMBER: US/10/602,219
; CURRENT FILING DATE: 2003-06-23
; PRIOR APPLICATION NUMBER: 09/993,059
; PRIOR FILING DATE: 2001-11-13
; PRIOR APPLICATION NUMBER: 09/626,127
; PRIOR FILING DATE: 2000-07-26
; PRIOR APPLICATION NUMBER: 09/316,572
; PRIOR FILING DATE: 1999-05-21
; PRIOR APPLICATION NUMBER: 08/324,003
; PRIOR FILING DATE: 1994-10-14
; PRIOR APPLICATION NUMBER: 08/176,414
; PRIOR FILING DATE: 1993-12-29
; PRIOR APPLICATION NUMBER: 07/997,733
; PRIOR FILING DATE: 1992-12-30
; PRIOR APPLICATION NUMBER: 08/184,237
; PRIOR FILING DATE: 1994-01-19
; PRIOR APPLICATION NUMBER: 07/923,692
; PRIOR FILING DATE: 1992-07-31
; PRIOR APPLICATION NUMBER: 07/600,244
; PRIOR FILING DATE: 1990-10-22
; PRIOR APPLICATION NUMBER: 07/641,617
; PRIOR FILING DATE: 1991-01-16
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 32
; SOFTWARE: Patent in version 3.2
; SEQ ID NO 16
; LENGTH: 417
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-602-219-16

Query Match 98.8%; Score 2293; DB 12; Length 417;
Best Local Similarity 100.0%; Pred. No. 8.1e-227;
Matches 417; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MOLRNPGLHGCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWRPFCNLDCCQEEP 60
Db 1 MOLRNPGLHGCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWRPFCNLDCCQEEP 60
Qy 61 DSCISEKLFMEAEMLVSEGWKADAGEYLCIDDCWMAQORDSEGRLOADPQRFPHGIRQL 120
Db 61 DSCISEKLFMEAEMLVSEGWKADAGEYLCIDDCWMAQORDSEGRLOADPQRFPHGIRQL 120
Qy 121 ANYVHSGKLGIGIYADVGNKTCAGPFGSGFYDIDAQTFADWGVDDLKFGDCYCDLLENL 180
Db 121 ANYVHSGKLGIGIYADVGNKTCAGPFGSGFYDIDAQTFADWGVDDLKFGDCYCDLLENL 180
Qy 181 ADGKXMSLALNRTGRSIVYSCWPLMYPFKPNTYIRQYCNHWRNFADIDDSWKSIX 240
Db 181 ADGKXMSLALNRTGRSIVYSCWPLMYPFKPNTYIRQYCNHWRNFADIDDSWKSIX 240
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Qy 241 SILDWTGNSQRIIVDVAGPGGNDPDLVIGNFGLSWNNQVQTMALWAIMAAPLFMSNDL 300
Db 241 SILDWTGNSQRIIVDVAGPGGNDPDLVIGNFGLSWNNQVQTMALWAIMAAPLFMSNDL 300
Qy 301 RHISPOKALLQDKDVIAINQDPLGKQGYQLRQDGFVWVERPLSGLAWAVAMINROEIG 360
Db 301 RHISPOKALLQDKDVIAINQDPLGKQGYQLRQDGFVWVERPLSGLAWAVAMINROEIG 360
Qy 361 GPRSYTIVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLSHINPTGTVLQL 417
Db 361 GPRSYTIVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLSHINPTGTVLQL 417

RESULT 10

US-10-103-327-16

; Sequence 16, Application US/10103327

; Publication No. US20030106095A1

; GENERAL INFORMATION:

; APPLICANT: GARGER, Stephen A.

; APPLICANT: TURPEN, Thomas H.

; APPLICANT: KUMAGAI, Monto H.

; TITLE OF INVENTION: PRODUCTION OF LYOSOMAL ENZYMES IN

; TITLE OF INVENTION: PLANTS BY TRANSCIENT EXPRESSION

; FILE REFERENCE: 008010087CPUS06

; CURRENT APPLICATION NUMBER: US/10/103.327

; CURRENT FILING DATE: 2002-03-20

; PRIOR APPLICATION NUMBER: US/09/993,059

; PRIOR FILING DATE: 2001-11-13

; NUMBER OF SEQ ID NOS: 37

; SOFTWARE: FastSeq for Windows Version 4.0

; SEQ ID NO 16

; LENGTH: 417

; TYPE: PRT

; ORGANISM: Homo sapiens

US-10-103-327-16

Query Match 98.8%; Score 2293; DB 15; Length 417;
Best Local Similarity 100.0%; Pred. No. 8.1e-227;
Matches 417; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MQLRNPELHLCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWRFCNLDCCDEP 60
Db 1 MQLRNPELHLCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWRFCNLDCCDEP 60
Qy 61 DSCISEKLFMEAEALVSEGWKADAGYEYLCIDDCWAPQDSEGRLOADPQRPFGIRQL 120
Db 61 DSCISEKLFMEAEALVSEGWKADAGYEYLCIDDCWAPQDSEGRLOADPQRPFGIRQL 120
Qy 121 ANYVHSGKLGLGIYADVGNKTCAGPFGSGFYDIDAQTFADWGVYDILLKFGCCYCDLSLE 180
Db 121 ANYVHSGKLGLGIYADVGNKTCAGPFGSGFYDIDAQTFADWGVYDILLKFGCCYCDLSLE 180
Qy 181 ADGKXMSLALNRGTSIVVSCWPLVMPFPQKNYTEIRQYCNHWRNFADIDDSWKSIIK 240
Db 181 ADGKXMSLALNRGTSIVVSCWPLVMPFPQKNYTEIRQYCNHWRNFADIDDSWKSIIK 240
Qy 241 SILDWTGNSQRIIVDVAGPGGNDPDLVIGNFGLSWNNQVQTMALWAIMAAPLFMSNDL 300
Db 241 SILDWTGNSQRIIVDVAGPGGNDPDLVIGNFGLSWNNQVQTMALWAIMAAPLFMSNDL 300
Qy 301 RHISPOKALLQDKDVIAINQDPLGKQGYQLRQDGFVWVERPLSGLAWAVAMINROEIG 360
Db 301 RHISPOKALLQDKDVIAINQDPLGKQGYQLRQDGFVWVERPLSGLAWAVAMINROEIG 360
Qy 361 GPRSYTIVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLSHINPTGTVLQL 417
Db 361 GPRSYTIVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLSHINPTGTVLQL 417

RESULT 11

US-10-602-219-12

; Sequence 12, Application US/10602219

Publication No. US20040016021A1
; GENERAL INFORMATION:
; APPLICANT: Large Scale Biology Corporation
; APPLICANT: Turpen, Thomas H.
; APPLICANT: Poque, Gregory P.
; APPLICANT: Erwin, Robert L.
; APPLICANT: Grillo, Laurence K.
; TITLE OF INVENTION: PRODUCTION OF LYOSOMAL ENZYMES IN PLANTS BY TRANSCIENT EXPRE
; FILE REFERENCE: LSBC-0087-CP09B
; CURRENT APPLICATION NUMBER: US/10/602.219
; CURRENT FILING DATE: 2003-06-23
; PRIOR APPLICATION NUMBER: 09/993,059
; PRIOR FILING DATE: 2001-11-13
; PRIOR APPLICATION NUMBER: 09/626,127
; PRIOR FILING DATE: 2000-07-26
; PRIOR APPLICATION NUMBER: 09/316,572
; PRIOR FILING DATE: 1999-05-21
; PRIOR APPLICATION NUMBER: 08/324,003
; PRIOR FILING DATE: 1994-10-14
; PRIOR APPLICATION NUMBER: 08/176,414
; PRIOR FILING DATE: 1993-12-29
; PRIOR APPLICATION NUMBER: 07/997,733
; PRIOR FILING DATE: 1992-12-30
; PRIOR APPLICATION NUMBER: 08/184,237
; PRIOR FILING DATE: 1994-01-19
; PRIOR APPLICATION NUMBER: 07/923,692
; PRIOR FILING DATE: 1992-07-31
; PRIOR APPLICATION NUMBER: 07/600,244
; PRIOR FILING DATE: 1990-10-22
; PRIOR APPLICATION NUMBER: 07/641,617
; PRIOR FILING DATE: 1991-01-16
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 32
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 12
; LENGTH: 421
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-602-219-12

Query Match 98.8%; Score 2293; DB 12; Length 421;
Best Local Similarity 100.0%; Pred. No. 8.2e-227;
Matches 417; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 1 MQLRNPELHLCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWRFCNLDCCDEP 60
Db 1 MQLRNPELHLCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWRFCNLDCCDEP 60
Qy 61 DSCISEKLFMEAEALVSEGWKADAGYEYLCIDDCWAPQDSEGRLOADPQRPFGIRQL 120
Db 61 DSCISEKLFMEAEALVSEGWKADAGYEYLCIDDCWAPQDSEGRLOADPQRPFGIRQL 120
Qy 121 ANYVHSGKLGLGIYADVGNKTCAGPFGSGFYDIDAQTFADWGVYDILLKFGCCYCDLSLE 180
Db 121 ANYVHSGKLGLGIYADVGNKTCAGPFGSGFYDIDAQTFADWGVYDILLKFGCCYCDLSLE 180
Qy 181 ADGKXMSLALNRGTSIVVSCWPLVMPFPQKNYTEIRQYCNHWRNFADIDDSWKSIIK 240
Db 181 ADGKXMSLALNRGTSIVVSCWPLVMPFPQKNYTEIRQYCNHWRNFADIDDSWKSIIK 240
Qy 241 SILDWTGNSQRIIVDVAGPGGNDPDLVIGNFGLSWNNQVQTMALWAIMAAPLFMSNDL 300
Db 241 SILDWTGNSQRIIVDVAGPGGNDPDLVIGNFGLSWNNQVQTMALWAIMAAPLFMSNDL 300
Qy 301 RHISPOKALLQDKDVIAINQDPLGKQGYQLRQDGFVWVERPLSGLAWAVAMINROEIG 360
Db 301 RHISPOKALLQDKDVIAINQDPLGKQGYQLRQDGFVWVERPLSGLAWAVAMINROEIG 360
Qy 361 GPRSYTIVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLSHINPTGTVLQL 417
Db 361 GPRSYTIVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLSHINPTGTVLQL 417

RESULT 12

US-10-103-327-12
; Sequence 12, Application US/10103327
; Publication No. US20030106095A1
; GENERAL INFORMATION:
; APPLICANT: GARGER, Stephen A.
; APPLICANT: TURPEN, Thomas H.
; APPLICANT: KIMAGAI, Monto H.
; TITLE OF INVENTION: PRODUCTION OF LYSOSOMAL ENZYMES IN
; FILE REFERENCE: 008010087CPUS06
; CURRENT APPLICATION NUMBER: US/10/103,327
; CURRENT FILING DATE: 2002-03-20
; PRIOR APPLICATION NUMBER: US/09/993,059
; PRIOR FILING DATE: 2001-11-13
; NUMBER OF SEQ ID NOS: 37
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 12
; LENGTH: 421
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-103-327-12

Query Match 98.8%; Score 2293; DB 15; Length 421;
Best Local Similarity 100.0%; Pred. No. 8.2e-227;
Matches 417; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy	1	MQLRNPGLHGCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWFRCMNCDCQEEP	60
Db	1	MQLRNPGLHGCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWFRCMNCDCQEEP	60
Qy	61	DSCISEKLFMEAEIWMVSEGWKADGYEYLICDCCWMAFQDSEGRLOADPQPFPHGIRQL	120
Db	61	DSCISEKLFMEAEIWMVSEGWKADGYEYLICDCCWMAFQDSEGRLOADPQPFPHGIRQL	120
Qy	121	ANYVHSGKLGIGIYADVGNKTCAGPPSGFYGYDIDAQTFADGWVLLKFDGCGYCDLENL	180
Db	121	ANYVHSGKLGIGIYADVGNKTCAGPPSGFYGYDIDAQTFADGWVLLKFDGCGYCDLENL	180
Qy	181	ADGKXMSLALNRGTSIVYSCENPLYMWPPKPNYTEIROYCNHWRNFADIDDSWKSIX	240
Db	181	ADGKXMSLALNRGTSIVYSCENPLYMWPPKPNYTEIROYCNHWRNFADIDDSWKSIX	240
Qy	241	SILDWTSFNQERIYDVAGPGGNDPDMVLVGNFGLSMNQVQTQMAIWAIMAAPLFMSNDL	300
Db	241	SILDWTSFNQERIYDVAGPGGNDPDMVLVGNFGLSMNQVQTQMAIWAIMAAPLFMSNDL	300
Qy	301	RHISFOAKALLQDKDVIAINQDPLGKQGYQLRQGDNFEVWERPLSGLAWAVAMINRQSIG	360
Db	301	RHISFOAKALLQDKDVIAINQDPLGKQGYQLRQGDNFEVWERPLSGLAWAVAMINRQSIG	360
Qy	361	GPRSYTTIIVASLKGKGVACNPACFITQLLPVKRKLGFYEWTSRLRSHINPTGTVLQL	417
Db	361	GPRSYTTIIVASLKGKGVACNPACFITQLLPVKRKLGFYEWTSRLRSHINPTGTVLQL	417

RESULT 13

US-10-131-410-106
; Sequence 106, Application US/10131410
; Publication No. US20030235915A1
; GENERAL INFORMATION:
; APPLICANT: SPECHT, THOMAS
; APPLICANT: HINZMANN, BERNARD
; APPLICANT: SCHMITT, ARMIN
; APPLICANT: PILARSKY, CHRISTIAN
; APPLICANT: DAHL, EDGAR
; TITLE OF INVENTION: HUMAN NUCLEIC ACID SEQUENCES FROM TISSUE OF BREAST
; TITLE OF INVENTION: TUMORS
; FILE REFERENCE: SCH-1763
; CURRENT APPLICATION NUMBER: US/10/131,410
; CURRENT FILING DATE: 2002-04-25
; PRIOR APPLICATION NUMBER: 09/646,673

; PRIOR FILING DATE: 2000-09-20
; PRIOR APPLICATION NUMBER: PCT/DE99/00908
; PRIOR FILING DATE: 1999-03-19
; NUMBER OF SEQ ID NOS: 202
; SOFTWARE: PatentIn Ver. 2.1
; SEQ ID NO 106
; LENGTH: 478
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-131-410-106

Qy	1	MQLRNPGLHGCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWFRCMNCDCQEEP	60
Db	50	MQLRNPGLHGCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWFRCMNCDCQEEP	109
Qy	61	DSCISEKLFMEAEIWMVSEGWKADGYEYLICDCCWMAFQDSEGRLOADPQPFPHGIRQL	120
Db	110	DSCISEKLFMEAEIWMVSEGWKADGYEYLICDCCWMAFQDSEGRLOADPQPFPHGIRQL	169
Qy	121	ANYVHSGKLGIGIYADVGNKTCAGPPSGFYGYDIDAQTFADGWVLLKFDGCGYCDLENL	180
Db	170	ANYVHSGKLGIGIYADVGNKTCAGPPSGFYGYDIDAQTFADGWVLLKFDGCGYCDLENL	229
Qy	181	ADGKXMSLALNRGTSIVYSCENPLYMWPPKPNYTEIROYCNHWRNFADIDDSWKSIX	240
Db	230	ADGKXMSLALNRGTSIVYSCENPLYMWPPKPNYTEIROYCNHWRNFADIDDSWKSIX	289
Qy	241	SILDWTSFNQERIYDVAGPGGNDPDMVLVGNFGLSMNQVQTQMAIWAIMAAPLFMSNDL	300
Db	290	SILDWTSFNQERIYDVAGPGGNDPDMVLVGNFGLSMNQVQTQMAIWAIMAAPLFMSNDL	349
Qy	301	RHISFOAKALLQDKDVIAINQDPLGKQGYQLRQGDNFEVWERPLSGLAWAVAMINRQSIG	360
Db	350	RHISFOAKALLQDKDVIAINQDPLGKQGYQLRQGDNFEVWERPLSGLAWAVAMINRQSIG	409
Qy	361	GPRSYTTIIVASLKGKGVACNPACFITQLLPVKRKLGFYEWTSRLRSHINPTGTVLQL	417
Db	410	GPRSYTTIIVASLKGKGVACNPACFITQLLPVKRKLGFYEWTSRLRSHINPTGTVLQL	466

RESULT 14

US-10-602-219-8
; Sequence 8, Application US/10602219
; Publication No. US2004001602A1
; GENERAL INFORMATION:
; APPLICANT: Large Scale Biology Corporation
; APPLICANT: Turpen, Thomas H.
; APPLICANT: Pogue, Gregory P.
; APPLICANT: Erwin, Robert L.
; APPLICANT: Grill, Laurence K.
; TITLE OF INVENTION: PRODUCTION OF LYSOSOMAL ENZYMES IN PLANTS BY TRANSIENT EXPRESSION
; FILE REFERENCE: LSBC-0087-CF09B
; CURRENT APPLICATION NUMBER: US/10/602,219
; CURRENT FILING DATE: 2003-06-23
; PRIOR APPLICATION NUMBER: 09/993,059
; PRIOR FILING DATE: 2001-11-13
; PRIOR APPLICATION NUMBER: 09/626,127
; PRIOR FILING DATE: 2000-07-26
; PRIOR APPLICATION NUMBER: 09/316,572
; PRIOR FILING DATE: 1999-05-21
; PRIOR APPLICATION NUMBER: 08/324,003
; PRIOR FILING DATE: 1994-10-14
; PRIOR APPLICATION NUMBER: 08/176,414
; PRIOR FILING DATE: 1993-12-29
; PRIOR APPLICATION NUMBER: 07/997,733
; PRIOR FILING DATE: 1992-12-30
; PRIOR APPLICATION NUMBER: 08/184,237
; PRIOR FILING DATE: 1994-01-19
; PRIOR APPLICATION NUMBER: 07/923,692


```

; PRIOR FILING DATE: 1992-07-31
; PRIOR APPLICATION NUMBER: 07/600,244
; PRIOR FILING DATE: 1990-10-22
; PRIOR APPLICATION NUMBER: 07/641,617
; PRIOR FILING DATE: 1991-01-16
; Remaining Prior Application data removed - See File Wrapper or PALM.
; NUMBER OF SEQ ID NOS: 32
; SOFTWARE: PatentIn version 3.2
; SEQ ID NO 8
; LENGTH: 424
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-602-219-8

Query Match      98.5%; Score 2288; DB 12; Length 424;
Best Local Similarity 100.0%; Pred. No. 2.7e-226;
Matches 416; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

Qy 2 QLRNPELHGCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWFMCNLDQCEPD 61
Db 1 QLRNPELHGCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWFMCNLDQCEPD 60
Qy 62 SCISEKLFMEAEMLVSEGWKADGYEYLICIDDCWMAFORDSEGRLOADPQRPFGIROLA 121
Db 61 SCISEKLFMEAEMLVSEGWKADGYEYLICIDDCWMAFORDSEGRLOADPQRPFGIROLA 120
Qy 122 NYVHSKGLGIYADVGNKTCAGPPGSGFYGYDIDAQTFADNGVLLKFDGVCYCDLENLA 181
Db 121 NYVHSKGLGIYADVGNKTCAGPPGSGFYGYDIDAQTFADNGVLLKFDGVCYCDLENLA 180
Qy 182 DGYKMSLALNRTGRSIVYSCWPLYMPPFQKPNYTEIROYCNHWRNFPADIDDSWKSIS 241
Db 181 DGYKMSLALNRTGRSIVYSCWPLYMPPFQKPNYTEIROYCNHWRNFPADIDDSWKSIS 240
Qy 242 ILDTWTFNQERIVDVAGPGGWNDDMLVIGNFGLSNQOVTQMALWAIMAAPLFWMSNDLR 301
Db 241 ILDTWTFNQERIVDVAGPGGWNDDMLVIGNFGLSNQOVTQMALWAIMAAPLFWMSNDLR 300
Qy 302 HISPOAKALLQDKDVIAINODPLGKQGYQLRQGNFVFWERPLSGLAWAVAMINRQIEGG 361
Db 301 HISPOAKALLQDKDVIAINODPLGKQGYQLRQGNFVFWERPLSGLAWAVAMINRQIEGG 360
Qy 362 PRSYTIAVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLSRSHINPTGTVLQOL 417
Db 361 PRSYTIAVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLSRSHINPTGTVLQOL 416

RESULT 15
US-10-103-327-8
; Sequence 8, Application US/10103327
; Publication No. US20030106095A1
; GENERAL INFORMATION:
; APPLICANT: GARGER, Stephen A.
; APPLICANT: KUNAGAI, Monto H.
; TITLE OF INVENTION: PRODUCTION OF LYSOSOMAL ENZYMES IN
; FILE REFERENCE: 008010087CPUS06
; CURRENT FILING DATE: 2002-03-20
; PRIOR APPLICATION NUMBER: US/09/993,059
; PRIOR FILING DATE: 2001-11-13
; NUMBER OF SEQ ID NOS: 37
; SOFTWARE: FastSeq for Windows Version 4.0
; SEQ ID NO 8
; LENGTH: 424
; TYPE: PRT
; ORGANISM: Homo sapiens
US-10-103-327-8

Query Match      98.5%; Score 2288; DB 15; Length 424;
Best Local Similarity 100.0%; Pred. No. 2.7e-226;
Matches 416; Conservative 0; Mismatches 0; Indels 0; Gaps 0;

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Qy 2 QLRNPELHGCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWFMCNLDQCEPD 61
Db 1 QLRNPELHGCALALRFLALVSWDIPGARALDNGLARTPTMGWLHWFMCNLDQCEPD 60
Qy 62 SCISEKLFMEAEMLVSEGWKADGYEYLICIDDCWMAFORDSEGRLOADPQRPFGIROLA 121
Db 61 SCISEKLFMEAEMLVSEGWKADGYEYLICIDDCWMAFORDSEGRLOADPQRPFGIROLA 120
Qy 122 NYVHSKGLGIYADVGNKTCAGPPGSGFYGYDIDAQTFADNGVLLKFDGVCYCDLENLA 181
Db 121 NYVHSKGLGIYADVGNKTCAGPPGSGFYGYDIDAQTFADNGVLLKFDGVCYCDLENLA 180
Qy 182 DGYKMSLALNRTGRSIVYSCWPLYMPPFQKPNYTEIROYCNHWRNFPADIDDSWKSIS 241
Db 181 DGYKMSLALNRTGRSIVYSCWPLYMPPFQKPNYTEIROYCNHWRNFPADIDDSWKSIS 240
Qy 242 ILDTWTFNQERIVDVAGPGGWNDDMLVIGNFGLSNQOVTQMALWAIMAAPLFWMSNDLR 301
Db 241 ILDTWTFNQERIVDVAGPGGWNDDMLVIGNFGLSNQOVTQMALWAIMAAPLFWMSNDLR 300
Qy 302 HISPOAKALLQDKDVIAINODPLGKQGYQLRQGNFVFWERPLSGLAWAVAMINRQIEGG 361
Db 301 HISPOAKALLQDKDVIAINODPLGKQGYQLRQGNFVFWERPLSGLAWAVAMINRQIEGG 360
Qy 362 PRSYTIAVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLSRSHINPTGTVLQOL 417
Db 361 PRSYTIAVASLGKGVACNPACFITQLLPVKRKLGFYEWTSRLSRSHINPTGTVLQOL 416

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Search completed: January 29, 2004, 12:47:52
Job time : 42 secs